New Method of Architecture

Rapid Calculation for the Proportions of the Five Orders of Architecture
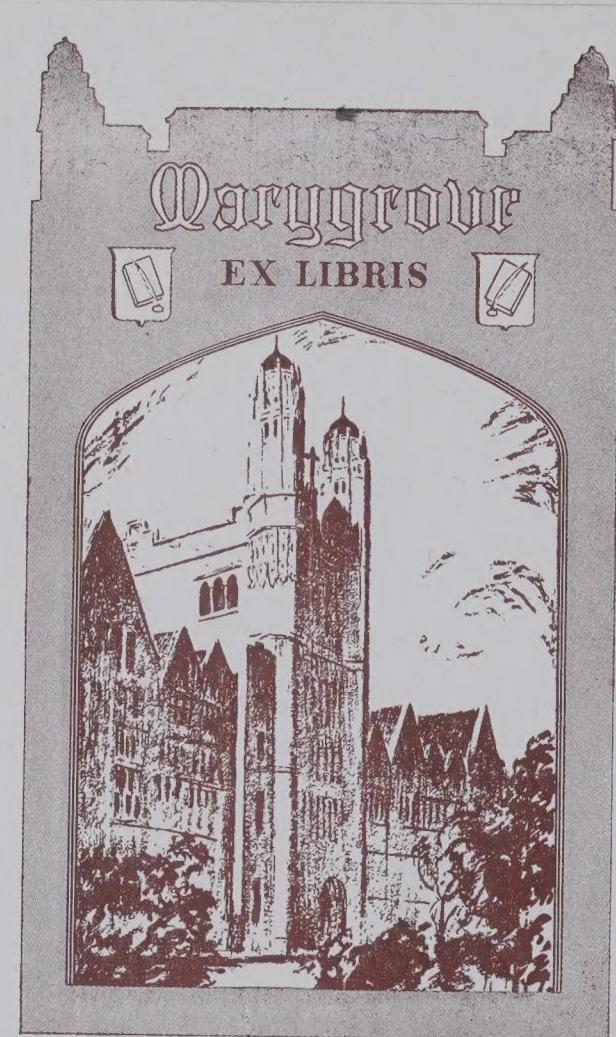
A Course in Theoretical and Practical Architecture

A New and Easy Method for Making Calculations of the
Proportions of the Five Orders of Architecture
of Giacomo Barozzi of Vignola

Useful for Students of Architecture,
Architects, Draughtsmen, Designers, Sculptors, Painters, Engineers
and Building Superintendents

By

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PREFACE

WHEN the author was occupied in the study of architecture he was much impressed with the desirability of some means of establishing the proportions of architectural parts by simple calculations, so that, the general dimensions being given, the details might be worked out in conformity with established rules without too great labor, but with a certainty of producing a harmonious and well balanced design.

Difficulties of various natures have stood in the way; the working out of the proper factors and the preparation of the various tables have required years of work, but at last the difficulties have been surmounted, the proper factors determined and the tables of proportions worked out to cover every detail.

These factors and tables are based on careful study of the proportions established by Vignola's "Rules of the Five Orders of Architecture," the accepted authority on classical architecture, and will be found to give a much needed short cut to Vignola's exact proportions.

This book is dedicated to the American Institute of Architects with the hope that members of the profession may find it simplify some of their problems of design.

<div align="right">F. S. SCARLATA.</div>

Port Huron, Michigan, 1921.

A BRIEF BIOGRAPHY

of

Giacomo Barozzi of Vignola

VIGNOLA was born in 1507, in the City of Vignola, Province of Modena, Italy. He was the noted architect of many very large and famous public structures. He died at the age of sixty-six years and his remains were placed in the Pantheon with the most famous men of Italy.

When Vignola established himself in Rome, public officials commissioned him to make accurate measurements and drawings of all the ancient structures. He proved to be very successful at everything he undertook. Everybody admired the cathedrals and convents which Vignola designed and built at Bologna, Perrugia and many other places in Italy. In Rome, the grand palaces that he designed, are admired and studied even until the present day.

Foreign countries offered Vignola large sums for his services, but he refused to leave Rome, because he wished to finish St. Peter's Cathedral, and so he dedicated his services to Rome above all else, and loved the city as though it had been his birth-place.

Vignola established the proper proportions of architecture, and made the measure unchangeable.

The proportions which he developed, were the fruits of his study of Vitruvius' "De re aedificatoria." He compared the memoranda of Vitruvius with the actual ancient buildings as he found them.

After he had determined the quota, or relative height or width of the various members and mouldings of the orders, he was very successful in obtaining excellent effects.

No architect should fail to use Vignola's proportions. They are indispensable to every student of architecture, and Vignola justly deserves the title "The Lawmaker of Architecture."

PART ONE

What Is Architecture?

1. Architecture is the art of building structures not only in accordance with the mechanical principles of the builder's art and by the requirements established by the ends the structure is intended to serve, but also (and of equal importance) in accordance with principles determined by high considerations of beauty and harmony.

2. The History of Architecture may be divided into four periods: Antique, Mediaeval, Renaissance and Modern.

3. **Antique Architecture** covers the period from the dawning of the art to the fall of the Roman Empire, about 400 A. D., including Egyptian, Chaldean, Grecian, and Roman architecture.

EGYPTIAN ARCHITECTURE

The architecture of Egypt has a very rustic and primitive appearance. It is heavy and severe. The outside walls of the temples are built on a slant like military fortifications. Almost the only remains which we now find of ancient Egyptian art, are the pyramids and the tombs or sepulchers which were built into the cliffs along the River Nile.

GRECIAN ARCHITECTURE

The Greeks were masters of art. This people produced men who developed the art of architecture to the utmost state of perfection.

ETRUSCAN ARCHITECTURE

The Etruscans developed a style of architecture very similar to that of the Greeks, and we find remains of monuments in both of these countries whereby we can see the resemblance.

ROMAN ARCHITECTURE

The Romans were very ambitious people and acquired many ideas of art from the Greeks. They descended from the Etruscans, who erected the first edifice in Rome. They mingled their art with that of the Greeks and made rapid progress. From Sicily they transported Greek monuments to Rome and were inspired to refine their art.

The Romans invented the great public baths (called thermae), the ampitheatre, the circus, the public sewer (cloaca), and the aqueduct. They built many temples, not only in Rome, but all over the empire; they were the first people to build paved roads and streets; they built bridges across the Tiber River, etc.

Under Emperor Augustus, eighty-two temples were built in Rome alone, besides many others throughout the Empire. Roman art reached its climax during this reign and marble was substituted for brick and terra cotta.

Roman art declined with the fall of the Empire and a period of great confusion followed, during which time very distressing and bizarre examples of art were produced. The time, however, came, when a modified style of art was developed and this was the birth of the Roman Byzantine or Latin Style.

During the invasions of the barbarians the entire land was plundered, and with the collapse of the empire, all appreciation for art and learning was smothered.

4. **Mediaeval Architecture** covers the period from the fall of the Roman Empire to the Italian Renaissance about A. D. 1452, including Byzantine, Romanesque, Gothic, and Arabesque architecture.

BYZANTINE ARCHITECTURE

The name of this style of art was obtained from Byzantium, the capital of the Eastern Empire, which later became known as Constantinople.

This style is mixed with the Greco-Roman and has semicircular arches and fanciful mosaic ornament, but it has little sense of symmetry.

ROMANESQUE ARCHITECTURE

This style originated with the Roman Christians and they alone employed it from 1000 to 1200 A. D. They used the semicircular arch.

GOTHIC ARCHITECTURE

This is a mixture of various styles and has the pointed arch and vaulted ceilings with delicate trim. This style was in vogue during the XIII and XIV centuries and declined in the XV century A. D. Some call it the Norman gothic, others call it Saxon gothic, and it is thought by still others that the style originated with the barbarians, but it is absurd to ascribe this art to a roving people who had no science of building. The author thinks it was a French or Italian invention and that it was simply given the name "Gothic."

ARABIAN, SARACENIC, MOORISH OR MOHAMMEDAN ARCHITECTURE

This was evolved by the Arabs at the time when they dominated the great region from Constantinople through North Africa to Spain. They used the so-called Arabesque ornament with fantastic compositions of leaves, flowers, etc., because the Mohammedan religion forbade the representation of the human figure or animal forms.

RENAISSANCE ARCHITECTURE

5. In the thirteenth and fourteenth centuries there was a gradual awakening in Italy from

the torpidity from which science and art had suffered under barbarian rule. This did not reach its full development till the middle of the fifteenth century, when various causes brought it to its culmination; among these may be mentioned, the discovery of Vitruvius' manuscript, "De re Aedificatoria" in 1452, the invention of the printing press in 1453 and the fall of Constantinople also in 1453. Changed conditions thus brought about promoted the development of the revival and the study in all countries of the principles of enduring art.

Italy was first to give up the Gothic style and to revert to the Greco-Roman.

Bramante deserves the credit for this restoration. He was the first man to employ this style again. Brumalleschi, Serlio, Vignola, Palladio, Scamozzi and others, agreed that the classic was the only system of construction to follow. They made a careful study of classic art and prepared a code of laws for students of architecture.

Vignola, Palladio and Scamozzi were the most zealous in the study of Vitruvius and therefore also the most influential in making the classic style the popular one.

BAROQUE ARCHITECTURE

6. During the XVI century decline, architects began to drift away from the true rules of art and to use tortuous lines, bizarre and grotesque decorations and heterogeneous forms,—departing entirely from the straight line design. They used extreme decorations, extravagant cartouches, spiral columns, etc. They infected all of Europe.

Then arose Milizia, a severe, stern and uncompromising man. He made his colleagues realize that they were pursuing a wrong and exaggerated course and by good tact and ability he led them back on the right path.

He invited architects from the larger cities of Italy and from other countries to meet with him, and in a most forceful manner, he explained to them the importance of reverting to classical art. The result was that academies and institutions de belle arte sprang up in Italy and in foreign countries. Artists then departed from their extravagant course and good art followed.

MODERN ARCHITECTURE

7. **Modern Architecture** may be considered as beginning with the opening of the 19th century. It is a period of cosmopolitan art, due to the easy access to the types and models of all countries and periods.

ESSENTIALS OF ARCHITECTURE

8. **Stability** is the prime and most essential characteristic of good architecture. Without stability other qualities are wasted.

9. **Utility** demands that a building be correctly planned so as to fit the particular purpose for which the building is intended.

10. **Beauty** is equally essential as an element of good architecture. To give a lasting impression of beauty four qualities must be observed, viz: (1) **proportion,** (2) **harmony,** (3) **symmetry,** and (4) **ornament.**

11. **Proportion** refers to the size and general dimensions of the structure and depends essentially upon the employment of mathematical ratios in the dimensions.

12. **Harmony** means the proper balancing of the several parts of the design, or proportion applied to relation of the details to each other.

13. **Symmetry** is uniformity of design, not necessarily identity of detail, as too great uniformity along this line leads to monotony.

14. **Ornament** is that detail that gives beauty and refinement to architecture when it is judiciously placed and artistically arranged in itself and in relation to the remainder of the structure. The combination of all the decorative features of an edifice constitute the ornament. It may be distinguished as **structural** and **applied.**

15. **Structural Ornament** refers to the design of integral parts of the structure on such lines as to embellish the entire edifice through their beauty and grace of line.

16. **Applied Ornament** is ornament applied on the surface of some part structurally complete without it, as for instance, sculpture or painting.

PART TWO
The Orders of Civil Architecture

17.   There are five orders of architecture; they are the **Tuscan,** the **Doric,** the **Ionic,** the **Corinthian** and the **Composite** or **Roman Triumphal.**

18.   The essential parts of an order are the **column,** the **entablature** and the **ornament.**

19.   The accessory parts of an order are the **pedestal,** (some critics are opposed to the use of the pedestal, but the author thinks this is absurd) and the **sub-base.**   An order is graceful without the pedestal, but with it, it appears more majestic.

20.   The order is complete, when it contains the **pedestal, column** and **entablature.**

21.   The pedestal is of a rectangular or parallelopiped shape.   In a structure, it serves as a support for the base of a column.   It is divided into three parts,—the **base,** the **dado,** or **die,** and the **cap.**

22.   **Proportions of the pedestal.**   Vignola made the height of the pedestal equal to one-third the height of the column for the **Tuscan,** the **Doric** and the **Ionic orders,** while for the **Corinthian** and the **Composite** orders, he made it one-third of a module taller.   This unequal proportion between the two groups, wrecks the simplicity which we would have without it.   It is the author's opinion, that the pedestal for each of the five orders should have the same relative proportions.   In case it is desired to have a slightly taller pedestal, recourse may be taken to the use of the sub-base.

N. B.   In connection with any one of the orders, with or without the pedestal, the sub-base may be used without reserve, providing, of course, that it is well proportioned.

23.   The **base** is the lowest part of the pedestal.

24.   The **dado** (or die) is the part immediately above the base.

25.   The **cap** is the crowning part of the pedestal.

26.   The column is divided into three parts,—the **base,** the **shaft** and the **capital.**

27.   The **base** is the lowest part of the column.   It may rest upon a pedestal, or directly upon the floor or pavement.   It does not require complicated mouldings to make it graceful and pleasing.   Sometimes no regular base is required, in which case we may simply use a slightly modified sub-base.

28.   The **shaft** rests upon the base and serves as a support for what is above it.   The axis of the column should always stand absolutely plumb and perpendicular to the base.

The beauty of the shaft lies in the exactness and regularity of its lines.

It is strictly prohibited by the "Institution de belle Arte" to attach brackets, consoles, balustrade rails or other objects to the face of a column. The use of the spiral shaped or twisted column is discouraged because it is deceiving in its real strength and it is not beautiful; neither is it considered wise to apply floral or figure decorations on the surface of the column, because its beauty lies in its simplicity.

Where a column must engage with a pilaster or with the wall, at least one-half of the column should project out from the face of the wall, because a bad effect is produced with less.

It is absolutely contrary to good taste and sound construction, to superimpose a column upon a console or bracket.

Any column appears most graceful, when the lower third of the shaft is a true cylinder, and the diameter gradually diminishes from the lower third point to the top, producing what is termed the **entasis** of the shaft.

29. The **capital** is the uppermost part of the column. It must conform to the particular order to which it belongs.

30. The **entablature** is divided into three parts,—the **architrave,** the **frieze** and the **cornice.**

31. The most essential part of the entablature is the architrave. It lies horizontally, uniting the supporting strength of the columns upon which it rests, and should never be interrupted in its course around the structure.

32. The frieze is the space between the architrave and the cornice, and serves as a surface for decoration, such as bas-relief, or inscriptions, indicating the name or purpose of the structure.

33. The cornice contains the richest mouldings of any part of the order. It is divided into an upper and lower cornice. In those orders which have dentils and modillions, those units or blocks should be equally spaced, and so arranged, that there will always be a dentil or a modillion directly on the axis of the column below.

34. When there is a pilaster behind a column, the former should always have the same entasis as the latter.

35. **Modifications of proportions.** Frequently it is impossible, due to the given space, to use the true proportions. In such cases the designer has the liberty to use a modified proportion of such part or parts of the order, providing it can be done gracefully.

36. **The Indispensable Parts of an Arcade.** The indispensable parts of an **arcade** are the **pier,** the **impost,** the **archivolt** and the **keystone.**

37. The pier is that section of wall from the pavement to the impost. For stability, the width of the pier should always be as great, or very nearly as great, as the radius of the arch. The two surfaces of the pier between the engaged column and the openings on either side, are called **alette.**

38. The **impost** is the uppermost part of the pier (or alette). The impost is a support for the foot of the arch, and it should project slightly from the face of the pier.

39. The **archivolt** is a band or fascia around the arch. It may be plain or ornamental with mouldings, which should be made to harmonize with those of the impost.

40. The **keystone** is the final and central stone of an arch.

41. The **attic** or **parapet** is a low wall above the cornice completing the elevation and lending stability to the cornice. It sometimes serves as a surface for inscriptions and bas-relief decorations and as a support for statuary.

MOULDINGS

42. **Mouldings.** Any work which is shaped into long regular grooves or projections, as curves, hollows, etc., is said to be moulded. Mouldings give shape to the cornice, the architrave, the base, the cap, etc.

43. Each moulding is distinguished by its particular shape,—flat, curved, simple, composite, regular or irregular. We say a moulding is flat when the surface is flat; curved, when its surface is curved; simple, when it is an arc of a circle; composite, when it is a combination of one curve smoothly joined to another; regular, when the curves all have equal radii; irregular, when the radii of the curves are unequal.

44. **Regular mouldings**—(1) fillet, (2) quarter round or ovolo, (3) cyma recta, (4) cyma reversa, (5) cavetto, (6) torus, (7) astragal (or bead), (8) scotia, (9) beak moulding, (10) fascia, (11) dentil, (12) modillion, (13) corona.

45. The **fillet** is a small flat rectangular projection or band. It is never ornamental and should always be left smooth. It is used to separate other mouldings.

46. **The quarter round or ovolo** is a convex arc of a circle. Its vertical and horizontal projections are equal. It serves as a support for other mouldings.

The ornament used on the ovolo usually resembles a chestnut when the outer shell has burst open, showing the fruit inside, and alternating with arrow-heads or darts, the symbol of Jove's javelins.

47. The **cyma recta** is formed of two reverse arcs of circles tangent to one another; the arcs may or may not be equal; they may be one-fourth or small fractions of a circle. The two arcs are reversed at the point where they are tangent to one another. This moulding is used for the crowning part of the cornice or of the cap of the pedestal.

48. The **cyma reversa** may be made of the arcs of two equal circles, and is then called regular. It is irregular when it is composed of arcs of unequal circles. It serves as a support and is employed in the cornice, frieze, architrave and cap. The ornament for either the cyma recta or cyma reversa, is the acanthus leaf or the leaf of some kind of aquatic plant.

49. The **cavetto** is a concave moulding with the curve opposite to that of the ovolo. It is used for a crown or terminal moulding.

50. The **torus** is a semicircular moulding, frequently used in the base of columns.

51. The **astragal or bead** is a semicircular moulding like the torus, but smaller.

In cases where greater projection of the astragal is desirable, we prolong the lines tangent to the extremities of the curve. The combination of mouldings constituting the astragal of a column, forms the collar of the column.

52. The **scotia** is a concave moulding with the face of the curve opposite to the torus and it is used to separate convex mouldings. It is termed simple, when it has only one curve, and composite, when it consists of more than one curve, in which case the curves must be joined so as to make the complete curve graceful and smooth.

53. The **beak moulding** or **bastone ritorto** is a composite moulding made of two or more curves, and is most frequently used for the crowning mould or lip of fountains, vases, or for the top rail of a balustrade. It may be decorated with channels and fillets or with delicate leaves.

54. A **fascia** is any horizontal or vertical band, projecting slightly from the face of the wall. It is frequently used as a dividing mark between successive stories of a building. The fascia should never be wider than the cornice, nor narrower than the radius of the column. The projection of the fascia should never be more than one-fourth its width. It is usually left plain; sometimes, however, it has mouldings or it may be divided into decorative panels.

55. The **dentils** are small rectangular blocks in a series suggesting teeth. They are used in the cornice of the Ionic, Corinthian and Composite Orders, and sometimes in the Doric.

Vitruvius says the height of the dentil course should always be less than the height of the corona; the width of a dentil should never be more than two-thirds its height; the space between dentils should be one-third their height or one-half their width; the dentils should be so spaced that there will always be one directly on the axis of the column below; they should stand true and vertical and be without any decoration.

56. The **modillion** or **mutule** is a projecting body similar to the accompanying figure. It serves as a support most frequently, but may be merely ornamental. It is usually found in the Corinthian and the Composite orders.

In the Doric order the term mutule is applied to this form of ornament.

In the Corinthian order, it is important to make the curved lines of the modillions graceful and beautiful, and not to hide them with carved foliage or figures because the curves should be ornamental in themselves.

57.   The **corona** is a flat projecting fascia forming the lower part of the cornice. It has a little groove near the outside lower edge, forming a drip, which prevents rain water from running down over the rest of the cornice and wall. It is the dominating member of the cornice, and is sometimes decorated with small channels or flutes. It is better, however, always to leave the corona smooth, for the eye wants something simple to rest upon while it contemplates the rest of the cornice.

58.   **GENERAL RULES FOR THE COMPOSITION OF THE CORNICE**

The designer should be careful not to repeat the same moulding, except in bases where the reed or bead moulding is appropriate. He must be sure which mouldings are required in the various positions, such as supporting, crowning or decorative mouldings, and he should be able to apply them so as to produce a graceful effect.

59.   The **balustrade** is a series of small columns, surmounted by a top-rail or coping and serves as a parapet or protective railing around staircases, balconies, etc.

The principal parts of the **baluster,** are the **base,** the **body,** the **neck** and the **cap.**

60.   The stones in the exterior face of the wall are commonly called **ashlar.** They are rustic in the Tuscan and Doric orders but are more refined and smooth in the other orders.

61.   The **pediment** is that triangular or pointed portion of the elevation above the cornice. It is employed in the elevations of churches, theatres, banks, etc.

62.   The **acroteria** are the small pedestals placed upon the extremities and apex of the pediment, and serve as supports for statutes, vases, animal figures, trophies, etc.

PART THREE
The Architectural Measure

63.   The **module** is a theoretical and practical unit of measure, which serves to regulate the proportions of the five orders of Architecture.   It was used by Vitruvius.[1]   He made the module independent of all other standard units of measure, as the meter or foot.   The module is a variable unit, which changes with the diameter of the column. It corresponds to the radius of the shaft at its base and depends upon the particular order in consideration.   With the module we obtain the proportions of all the parts of the order.

Vignola divided the module into twelve parts for the Tuscan and Doric orders, and into eighteen parts for the Ionic, Corinthian and Composite orders.

Note: Some architects used a system of measurement which we may term "equal parts."

Palladio and Scamozzi divided the height of the column into four equal parts, making the entablature equal to one of these parts.   Then they divided the column into three equal parts and let one of these parts be the height of the pedestal. The entablature, they divided into thirteen parts, allowing four for the architrave, four for the frieze, and five for the cornice.   These parts were again subdivided to get the proportions of the mouldings.

EXPLANATION OF THE FACTOR FOR THE FIVE ORDERS OF ARCHITECTURE

64.   The factor of architecture facilitates the necessary calculations for determining the proportions of the orders.

By the use of this factor, in connection with the meter or foot, we obtain directly the correct standard measurement corresponding to the modular measurements of Vignola.

This factor shortens the work, since we no longer use the old modular system of measure as was formerly necessary.

This factor never changes as the module does.   Whereas the module formerly determined the height and proportion of the order, as is explained briefly in article 63, we now use the factor in connection with the height of the entire order and arrive at the correct proportions directly in standard units of measure.

[1]Marco Vitruvio Pollione was born in Fornio (at present Moladigaeta) in the Roman year 696. He died at the age of 70 years, or ten years B. C. He wrote a treatise on architecture (the only one known from antiquity). He dedicated it to Caesar in the Roman year 734. He flourished under the reign of Caesar and Pompey and obtained a life pension.

METHOD OF USING THE FACTOR

The thing always to determine first, is the desired height of the order, and then, by multiplying this height by the correct factor for any particular part of the order, we obtain the correct proportion for that part in standard measurement.

THE DERIVATION OF THE FACTOR

The factor is derived from the height of the order and the modular quota for each and every part of the order.

By dividing the quota for any one part of the order, by the total height of the order, we obtain the desired factor.

Example:—If the Tuscan Order with the pedestal is 22 modules and 2 parts high, and we reduce this all to parts (there are 12 parts in a module) we have 266 parts. In this case the height of the order, 266 parts, is the total quota. Now, if the quota for any component member or moulding of the order, is divided by 266, the quotient is the factor for that member or moulding.

DEMONSTRATIONS IN THE STANDARD UNITS OF MEASURE, THE METER, AND THE FOOT. METHODS OF CHANGING FROM THE METRIC TO THE ENGLISH SYSTEM AND VICE VERSA

65. The **meter** is the unit of modern scientific measurement. It is used in nearly all European countries. This unit is divided into 1,000 parts called **millimeters.**

$$\underset{1}{\text{meter}} = \underset{1000}{\text{mm.}} \times 1 = \underset{1000}{\text{mm.}} \div 1 = \underset{1000}{\text{mm.}}$$

66. The **foot** is the unit of the English system of measure. It is still used in the United States, England and other countries. The foot is divided into 12 inches, and the inch is again divided into **sixteenths of an inch.**

$$\underset{1}{\text{foot}} \times \underset{12}{\text{inches}} = \underset{12}{\text{inches}} \times \underset{16}{\text{sixteenths}} = \underset{16}{\frac{\text{foot}}{192}} \quad (\times 3 = 1 \text{ yard})$$

The above process shows the method of changing the foot into sixteenths of an inch.

$$\frac{192}{16} \div 16 = 12 \div 12 = 1 \text{ foot}$$

The operation above, indicates the method of converting sixteenths to feet and inches.

METHOD OF CHANGING METERS TO FEET AND VICE VERSA

67.   The meter is equivalent to 39.37 inches, English system, or, multiplying 39.37 by 16, equals 629.92 sixteenths of an inch. By dividing the meter by 629.92 (the equivalent of one meter in sixteenths of an inch) we get the metric factor .001587503175.

Method

mm.		sixteenths		metric factor
1000	÷	629.92	=	.001587503175

Solution for changing from meters to sixteenths of an inch:

meters		sixteenths		sixteenths
5	×	629.92	=	3149.60

Solution for changing from sixteenths to meters:

	factor		meters
3149.60 ×	.001587503175	=	4.99999999998000

Note:—The purpose of the preceding articles 65, 66, and 67, is to clarify the solution of the following problem under article 68, in which we employ the factor in connection with the metric measurement (in millimeters) and the English measurement (in sixteenths of an inch) in order to translate measurements from millimeters to sixteenths and vice versa and to change the scale of drawings in meters, to feet and vice versa.

Problem Corresponding to Plate Number IV.

THE TUSCAN ORDER WITH THE PEDESTAL

68. The height of the order is 5.000 meters (scale of drawing 10 cm. = 1m.)

The equivalent height in sixteenths of an inch (English measure) is $\dfrac{5.000 \times 629.92 = 3149.60}{16}$

Scale of drawing in English measure $\frac{1}{16}$ inch = 10/16 inch.

Solution:—Multiply the height of the order by the factor, and we obtain the correct proportion corresponding to Vignola.

	Name of Member	Height Factor	Measure of the Proportion		Metric Factor	Proportion		Pro-portion
			Meters	16ths of Inch		Meters	16ths of Inch	16ths of Inch
Total Order	Entablature ...	.157895	.7895	497.31	×.0015875	.7895	×629.92	497.32
	Column	.631579	3.1579	1989.22	"	3.1579	"	1989.25
	Pedestal	.210527	1.0526	663.08	"	1.0526	"	663.05
			5.0001	3149.61		5.0000		3149.62
Entablature	Cornice	.0601504	.3007	189.45	"	.3008	"	189.45
	Frieze	.0526316	.2631	165.77	"	.2632	"	165.79
	Architrave	.0451128	.2256	142.09	"	.2256	"	142.11
			.7894	497.31	"	.7896	"	497.35
Column	Capital	.0451128	.2256	142.09	"	.2256	"	142.11
	Shaft	.541354	2.7068	1705.05	"	2.7068	"	1705.07
	Base	.0451128	.2256	142.09	"	.2256	"	142.11
			3.1580	1989.32		3.1580		1989.29
Pedestal	Cap	.0225564	.1128	71.04	"	.1128	"	71.05
	Dado	.165414	.8271	520.99	"	.8271	"	521.01
	Basement	.0225564	.1128	71.04	"	.1128	"	71.05
			1.0527	663.07		1.0527		663.11
			5.0001	3149.61		5.0003		3149.75

69. Important notice:—Any architectural design, which is made in the metric scale, may be changed to the English scale and we obtain the same result.

The fundamental principle for using the above rule, is to change the height of the order from millimeters to sixteenths of an inch or vice versa.

Examples:

If the scale is 5cm. = 1 meter, then the corresponding scale in English measure is $\frac{1}{16}$ inch = 20/16 inch.

If the scale is 10 cm. = 1m., then the English scale is $\frac{1}{16}$ inch = 10/16 inch.

If the scale is 20 cm. = 1 m., then the English scale is $\frac{1}{16}$ inch = $\frac{5}{16}$ inch.

PART FOUR

Table One

THE TUSCAN ORDER WITH THE PEDESTAL

70.   This table contains the quota and the factors of architecture for the height and the projection of the members of the order.

	Name of Member	Measure in Modules	Height		Projection from face of Column		Projection from Axis of Column	
			Quota or Part	Factor	Quota	Factor	Quota	Factor
Order	Entablature	3.6	42	.157895	18	.0676692	27 ½ / 9 ½	.103384 / .0357143
	Column	14.	168	.631579			12	.0451128
	Pedestal	4.8	56	.210527	4	.0150376	20 ½	.0770677
		22.2	266					
Entablature	Cornice	1.4	16	.0601504	18	.0676692	27 ½	.103384
	Frieze	1.2	14	.0526316			9 ½	.0357143
	Architrave	1.	12	.0451128	2	.00751880	11 ½	.0432231
Column	Capital	1.	12	.0451128	5 ½	.0206767	15 / 9 ½	.0563910 / .0357143
	Shaft	12.	144	.541354			12	.0451128
	Base	1.	12	.0451128	4 ½	.0169173	16 ½	.0620301
Pedestal	Cap	.6	6	.0225564	4	.0150376	20 ½	.0770677
	Dado	3.8	44	.165414			16 ½	.0620301
	Basement	.6	6	.0225564	4	.0150376	20 ½	.0770677
		22.2	266					
Diameters	Upper Diam......	1.7	19	.0714286			9 ½	.0357143
	Lower Diam.....	2	24	.0902256			12	.0451128

Note:—The columns in the accompanying table headed "Modules" and "Quota", give the figures by which the factors were derived.

General Rule

We obtain the proportion for any part of the order by multiplying the height of the order by the factor for that particular part.

BRIEF HISTORY OF THE TUSCAN ORDER

The Tuscan Order is an invention of the Etruscans, who originally came from Asia and established colonies in Etruria, (now Tuscany). They erected temples to their gods. The Tuscan Order is more sturdy and simple than the other orders. It is well adapted to rustic monuments with "bugni" (rusticated stone work), particularly to arsenals, triumphal arches, entrances to villas, city gates, etc.

Vignola made the height of this order 22 modules and 2 parts. He divided the module into 12 parts. The quota for the height is therefore equivalent to 266 parts; the entablature should be ¼ the height of the column, and the pedestal ⅓ the height of the column.

Table Two

THE TUSCAN ORDER WITH THE PEDESTAL

71.   This table contains the quota and the factors for the height and the projection of the mouldings of the order.

	Name of Moulding	Height		Projection from Face of Column		Projection from Axis of Column	
		Quota or Part	Factor	Quota	Factor	Quota	Factor
Cornice				18	.0676692	27½	.103384
	Ovolo	4.	.0150376	14	.0526316	23½	.0883459
	Reed	1.	.00375940	14½	.0545113	24	.0902256
	Fillet	½	.00187970	14	.0526316	23½	.0883459
	Corona	6.	.0225564	13	.0488722	22½	.0845865
	Fillet	½	.00187970	5	.0187970	14½	.0545113
				4½	.0169173	14	.0526316
	Cyma Reversa...	4.	.0150376	½	.00187970	10	.0375940
Frieze	Frieze ,..........	14.	.0526316			9½	.0357143
Architrave	Fillet	2.	.00751880	2	.00751880	11½	.0432231
	Fascia	10.	.0375940			9½	.0357143
Capital	Fillet	1.	.00375940	5½	.0206767	15	.0563910
	Abacus	3.	.0112782	4½	.0169173	14	.0526316
	Ovolo	3.	.0112782	4	.0150376	13½	.0507519
	Fillet	1.	.00375940	1	.00375940	10½	.0394737
	Frieze	4.	.0150376			9½	.0357143
Shaft	Astragal	1. }*	.00375940}*	1¾	.00657895	11¼	.0422933
	Fillet	½}	.00187970}	1	.00375940	10½	.0394737
	Shaft	144.	.541354				
	Upper Diam......	19. }*	.0714286 }*			9½	.0357143
	Lower Diam.....	24. }	.0902256 }			12	.0451128
Base	Fillet	1.	.00375940	1¾	.00657895	13¾	.0516918
	Torus	5.	.0187970	4½	.0169173	16½	.0620301
	Plinth	6.	.0225564	4½	.0169173	16½	.0620301
Cap	Fillet	2.	.00751880	4	.0150376	20½	.0770677
				3½	.0131579	20	.0751880
	Cyma Reversa...	4.	.0150376	½	.00187970	17	.0639098
Dado	Dado	44.	.165414			16½	.0620301
Basement	Fillet	1.	.00375940	2	.00751880	18½	.0695489
	Plinth	5.	.0187970	4	.0150376	20½	.0770677

*Note:—The figures or quota in brackets, must not be included when adding the figures for the total height of the order, because they are contained in the quota for the member of which they constitute subordinate parts.

Table Three

THE TUSCAN ORDER WITH THE PEDESTAL

72. Method of obtaining the height of the entire order and of all its parts, when we have only one or more parts of the order to work from, as for example, the diameter of the shaft, or the height of the base.

If the measure (in meters or feet) of any member is known, we divide this measure by the standard quota for that part and obtain the **factor** for that part. If we then multiply this factor by the total quota for the order to which the part belongs, we obtain the total height of the order in metric or English units, depending upon which system of measurement we are using.

After having found the height of the order by means of the table below, we turn back to tables one and two for completion of the details of the whole order.

Metric System (Millimeters) { Meters 5.000 × 629.92 Sixteenths =3149.60 × Factor .001587503175= Meters 4.999999999998000 } English System (Sixteenths of an Inch)

	Name of Member	Height of Member		Factor	Total Quota	Height of Order		Name of Member	Height of Member		Factor	Total Quota	Height of Order
		Metric	Quota						Sixteenths	Quota			
Order	Entablature	.7895÷	42=	.01879762×	266=	5.0002	**Order**	Entablature	497.31÷	42=	11.8407×	266=	3149.62
	Column	3.1579	168	.01879703	"	5.0000		Column	1989.22	168	11.8406	"	3149.60
	Pedestal	1.0526	56	.01879643	"	4.9999		Pedestal	663.08	56	11.8407	"	3149.62
		5.0000	266						3149.61	266			
Entablature	Cornice	.3007	16	.01879375	"	4.9991	**Entablature**	Cornice	189.45	16	11.8406	"	3149.60
	Frieze	.2631	14	.01879286	"	5.9988		Frieze	165.77	14	11.8406	"	3149.60
	Architrave	.2256	12	.01879999	"	5.0007		Architrave	142.09	12	11.8406	"	3149.60
Column	Capital	.2256	12	.01879999	"	5.0008	**Column**	Capital	142.09	12	11.8406	"	3149.60
	Shaft	2.7068	144	.01879723	"	5.0001		Shaft	1705.05	144	11.8406	"	3149.60
	Base	.2256	12	.01879999	"	5.0008		Base	142.09	12	11.8406	"	3149.60
Pedestal	Cap	.1128	6	.01879999	"	5.0008	**Pedestal**	Cap	71.04	6	11.8400	"	3149.44
	Dado	.8271	44	.01879773	"	5.0002		Dado	520.99	44	11.8407	"	3149.62
	Basement	.1128	6	.01879999	"	5.0008		Basement	71.04	6	11.8406	"	3149.44
		5.0001	266						3149.61	266			
Diameters	Upper Diam......	.3571	19	.01879474	"	4.9994	**Diameters**	Upper Diam........	224.97	19	11.8405	"	3149.57
	Lower Diam.....	.4511	24	.01879583	"	4.9997		Lower Diam.......	284.17	24	11.8404	"	3149.55

The Above Tables Correspond to Plate IIII

Note:—The method of obtaining the factors above, is the same in both tables, and while the unit of measure is different, the **proportions** are exactly the same in the metric as in the English system.

Table Four

THE TUSCAN ORDER WITHOUT THE PEDESTAL

73. This table contains the quota and the factors of architecture for the height and the projection of the members of the order.

	Name of Member	Measure in Modules	Height		Projection from Face of Column		Projection from Axis of Column	
			Quota	Factor	Quota	Factor	Quota	Factor
Order	Entablature ..	3.6	42	.200000	18	.0857143	27½	.130953
							9½	.0452381
	Column	14.	168	.800000			12	.0571429
		17.6	210					
Entablature	Cornice	1.4	16	.0761905	18	.0857143	27½	.130953
	Frieze	1.2	14	.0666667			9½	.0452381
	Architrave ...	1.	12	.0571429	2	.00952381	11½	.0547620
Column	Capital	1.	12	.0571429	5½	.0261905	15	.0714286
							9½	.0452381
	Shaft	12.	144	.685715			12	.0571429
	Base	1.	12	.0571429	4½	.0214286	16½	.0785715
		17.6	210					
Diameters	Upper Diam..	1.7	19	.0904762			9½	.0452381
	Lower Diam..	2.	24	.114286			12	.0571429

Note:—The columns in the accompanying tables headed "Modules" and "Quota", give the figures by which the factors were derived.

General Rule:

We obtain the proportion for any part of the order by multiplying the height of the order by the factor for that particular part.

The height of the Tuscan Order without the pedestal, is 17 modules and 6 parts. The module is divided into 12 parts. The total quota is therefore 210 parts.

To avoid confusion with the order including the pedestal, the above table gives the factors to be used exclusively with the order **without the pedestal,** and exactly the same proportions are obtained in each case.

Table Five

THE TUSCAN ORDER WITHOUT THE PEDESTAL

74. This table contains the quota and factors of architecture for the height and the projection of the members and the mouldings of the order.

Name of Moulding	Height		Projection from Face of Column		Projection from Axis of Column	
	Quota	Factor	Quota	Factor	Quota	Factor
Cornice						
			18	.0857143	27½	.130953
Ovolo	4.	.0190477	14	.0666667	23½	.111905
Reed	1.	.00476191	14½	.0690477	24	.114286
Fillet	½	.00238096	14	.0666667	23½	.111905
Corona	6.	.0285715	13	.0619048	22½	.107143
Fillet	½	.00238096	5	.0238096	14½	.0690477
			4.½	.0214286	14	.0666667
Cyma Reversa.	4.	.0190477	½	.00238096	10	.0476191
Frieze						
Frieze	14	.0666667			9½	.0452381
Architrave						
Fillet	2	.00952381	2	.00952381	11½	.0547620
Fascia	10	.0476191			9½	.0452381
Cap						
Fillet	1	.00476191	5½	.0261905	15	.0714286
Abacus	3	.0142858	4½	.0214286	14	.0666667
Ovolo	3	.0142858	4	.0190477	13½	.0642858
Fillet	1	.00476191	1	.00476191	10½	.0500000
Frieze	4	.0190477			9½	.0452381
Shaft						
Astragal	1 }*	.00476191}*	1¾	.00833334	11¼	.0535715
Fillet	½}	.00230896}	1	.00476191	10½	.0500000
Shaft	144	.685715				
Upper Diam...	19 }*	.0904762 }*			9½	.0452381
Lower Diam...	24 }	.114286 }			12	.0571429
Base						
Fillet	1	.00476191	1¾	.00833334	13¾	.0654762
Torus	5	.0238096	4½	.0214286	16½	.0785715
Plinth	6	.0285715	4½	.0214286	16½	.0875715

*Note:—The figures or quota in brackets, must not be included when adding the figures for the total height of the order, because they are contained in the quota for the member of which they constitute subordinate parts.

Table Six

THE TUSCAN ORDER WITHOUT THE PEDESTAL

75.   This table may be used for restoration of the Tuscan Order without the pedestal, in the same manner as is explained under "Table Three", page 20.

Metric System (Millimeters) $\{$ Meters $3.9474 \times 629.92 = 2486.55 \times$ Sixteenths Factor $.001587503175 = 3.94740601979625 \}$ Meters English System (Sixteenths of an Inch)

	Name of Member	Height of Member		Factor	Total Quota	Height of Order		Name of Member	Height of Member		Factor	Total Quota	Height of Order
		Meters	Quota						Sixteenths	Quota			
Order	Entablature ..	.7895÷	42=	.01879762×	210=	3.9475	**Order**	Entablature ..	497.31×	42=	11.8407×	210=	2486.55
	Column	3.1579	168	.01879703	"	3.9474		Column	1989.22	168	11.8406	"	2486.53
		3.9474	210						2486.53	210			
Entablature	Cornice	.3007	16	.01879375	"	3.9467	**Entablature**	Cornice	189.45	16	11.8406	"	2486.53
	Frieze	.2632	14	.01879286	"	3.9465		Frieze	165.77	14	11.8406	"	2486.53
	Architrave	.2256	12	.01879999	"	3.9480		Architrave ...	142.09	12	11.8406	"	2486.53
Column	Capital	.2256	12	.01879999	"	3.9480	**Column**	Capital	142.09	12	11.2406	"	2486.53
	Shaft	2.7068	144	.01879723	"	3.9474		Shaft	1705.05	144	11.8406	"	2486.53
	Base ....:	.2256	12	.01879999	"	3.9480		Base	142.09	12	11.8406	"	2486.53
		3.9475	210						2486.54	210			
Diameters	Upper Diam...	.3571	19	.01879474	"	3.9469	**Diameters**	Upper Diam...	224.97	19	11.8405	"	2486.51
	Lower Diam...	.4511	24	.01879583	"	3.9471		Lower Diam...	284.17	24	11.8404	"	2486.48

Note:—The above tables correspond to the proportions of the drawings on Plate IIII.

The method of obtaining the factors above, is the same in both tables, and while the unit of measure is different, the proportions are exactly the same in both systems of measurement.

INTERCOLUMNIATION

76. Intercolumniation is the space between columns. There are two kinds, simple intercolumniation (or architravato) and arcade intercolumniation.

Proportions:—Vignola gives 2⅓ modules for the space between columns in the Tuscan Order; 2¾ modules for the Doric Order; 2¼ modules for the Ionic Order; and 2⅓ modules for the Corinthian and Composite Orders.

The name **peristyle** is applied to a range of columns surrounding an edifice.

Table Seven

INTERCOLUMNIATION WITH THE TUSCAN ORDER

77. These tables contain the quota and the factors of architecture for the distance between, and the height of columns,—also the width and height of arches.

Kinds of Intercolumniation	Distance From Axis to Axis			Distance From Column to Column			Space Between Piers			Height of Opening			Height of Impost		
	Modules	Quota	Factor	Modules	Quota	Factor	Modules	Quota	Factor	Modules	Quota	Factor	Modules	Quota	Factor
Simple Intercolumniation...	6.8	80	.380953	4.8	56	.266667	4.8	56	.266667	14	168	.800000			
Arcade Without Pedestal....	9.6 / *10.	114 / 120	.542858 / .571429	7.6 / 8.	90 / 96	.428572 / .457143	6.6	78	.371429	13	156	.742858	9.9	117	.557143
Arcade With Pedestal.......	12.9	153	.575188	10.9	129	.484963	8.9	105	.394737	17.6	210	.789474	13.1½	157½	.592106

*Factors for increased width of "Alette".

Impost and Archivolt for Arcade **without** Pedestal.

Impost F=.0571429=Quota 12

Name of Moulding	Height		Projection	
	Quota	Factor	Quota	Factor
Fillet	1¾	.00833334	4	.0190477
Fascia²	7¼	.0345239	2	.00952381
Fascia¹	3	.0142858	1	.00476191
Archivolt .	12	.0571429		

Note:—The visible face of the pier, between the column and the opening (called alette) appears too small with Vignola's proportion.

A better effect is obtained by using the factor for the larger quota in the accompanying table.

Impost and Archivolt for Arcade **with** Pedestal.

Impost F=.0451128=Quota 12

Name of Moulding	Height		Projection	
	Quota	Factor	Quota	Factor
Fillet	1¾	.00657895	4	.0150376
Fascia²	7¼	.0272557	2	.00751880
Fascia¹	3	.0112782	1	.00375940
Archivolt .	12	.0451128	2	.00751880

PART FIVE

Table One

THE DORIC ORDER WITH THE PEDESTAL

78. The table below contains the quota and factors for the height and the projection of the members of the order.

	Name of Member	Measure in Modules	Height		Projection From Face of Column		Projection From Axis of Column	
			Quota	Factor	Quota	Factor	Quota	Factor
Order	Entablature	4.	48	.157895	24	.0789474	34	.111843
							10	.0328948
	Column	16.	192	.631579			12	.0394737
	Pedestal	5 ⅓	64	.210527	6	.0197369	23	.0756579
		25.4	304					
Entablature	Cornice	1.6	18	.0592106	24	.0789474	34	.111843
							10	.0328948
	Frieze	1.6	18	.0592106			10	.0328948
	Architrave	1.	12	.0394737	2	.00657895	12	.0394737
Column	Capital	1.	12	.0394737	5½	.0180922	15½	.0509869
							10	.0328948
	Shaft	14.	168	.552632			12	.0394737
	Base	1.	12	.0394737	5	.0164474	17	.0559211
Pedestal	Cap	.6	6	.0197369	6	.0197369	23	.0756579
	Dado	4.	48	.157895			17	.0559211
	Basement	.10	10	.0328948	4½	.0148027	21½	.0707237
		25.4	304					
Diameters	Upper Diam.....	1.8	20	.0657895			10	.0328948
	Lower Diam.....	2.	24	.0789474			12	.0394737

Note:—The columns in the accompanying table headed "Modules" and "Quota" give the figures by which the factors were derived.

General Rule:—The proportion for any part of the order is obtained by multiplying the height of the order, by the factor for that particular part.

BRIEF HISTORY OF THE DORIC ORDER

Ruins of antique monuments similar to the Doric Order were found in Egypt and it is thought that the Greeks transported some of those ruins to Greece. It is, however, impossible to state the true origin of this order. The Greeks used it frequently and rapidly improved upon its beauty.

Vignola made the height of the Doric Order 25 modules and 4 parts. He divided the module into 12 parts. The quota for the height is therefore equivalent to 304 parts. The entablature should be ¼ the height of the column and the pedestal should be ⅓ the height of the column.

Table Two A
THE DORIC ORDER WITH THE PEDESTAL (AND MUTULES.)

79. This table contains the quota and factors for the height and projection of the mouldings of the Doric Order.

Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
	Quota	Factor	Quota	Factor	Quota	Factor
Cornice						
Fillet	1.	.00328948	24	.0789474	34	.111843
Cyma Recta	3.	.00986843				
Fillet	½	.00164474	21	.0690790	31	.101974
			20¾	.0682566	30¾	.101152
Cyma Reversa	1.	.00328948	19¾	.0649672	29¾	.0978619
Corona	3½	.0115132	19½	.0641448	29½	.0970395
			19	.0625000	29	.0953948
Cyma Reversa	1.	.00328948	18¼	.0600329	28¼	.0929277
Mutule	3.	.00986843	18	.0592106	28	.0921053
Fascia of Mutule..						
Fillet	½	.00164474	4	.0131579	14	.0460527
Ovolo	2.	.00657895	3½	.0115132	13½	.0444079
Fillet	½	.00164474	1½	.00493422	11½	.0378290
Capital of the......						
Triglyph	2.	.00657895	¾	.00246711	10¾	.0353619
Frieze						
Frieze	18	.0592106			10	.0328948
Architrave						
Fillet	2	.00657895	2	.00657895	12	.0394737
Fascia²	6	.0197369	½	.00164474	10½	.0345395
Fascia³	4	.0131579			10	.0328948
Capital						
Fillet	½	.00164474	5½	.0180922	15½	.0509869
			5¼	.0172698	15¼	.0501645
Cyma Reversa	1.	.00328948	4¼	.0139803	14¼	.0468750
Abacus	2½	.00822369	4	.0131579	14	.0460527
			3¾	.0123356	13¾	.0452303
Ovolo	2½	.00822369	1¼	.00411185	11¼	.0370066
Astragal	1	.00328948	1½	.00493422	11½	.0378290
Fillet	½	.00164474	¾	.00246711	10¾	.0353619
Collarino	4	.0131579			10	.0328948
Shaft						
Astragal	1 }	.00328948}	1¾	.00575658	11¾	.0386514
Fillet	½ }*	.00164474}*	1.	.00328948	11	.0361843
Shaft	168	.552632				
Upper Diam........	20 }	.0657895 }			10	.0328948
Lower Diam........	24 }*	.0789474 }*			12	.0394737
Base						
Fillet	1	.00328948	1¾	.00575658	13¾	.0452303
Reed	1	.00328948	2½	.00822369	14½	.0476974
Torus	4	.0131579	5	.0164474	17	.0559211
Plinth	6	.0197369	5	.0164474	17	.0559211
Cap						
Fillet	½	.00164474	6	.0197369	23	.0756579
Ovolo	1	.00328948	5½	.0180922	22½	.0740132
Fillet	½	.00164474	4½	.0148027	21½	.0707237
Corona	2½	.00822369	4	.0131579	21	.0690790
			1½	.00493422	18½	.0608553
Cyma Reversa	1½	.00493422	½	.00164474	17½	.0575658
Dado						
Dado	48	.157895			17	.0559211
Basement						
Fillet	½	.00164474	1½	.00493422	18½	.0608553
Reed	1	.00328948	2	.00657895	19	.0625000
			2¼	.00740132	19¼	.0633224
Cyma Reversa......	2	.00657895	3¾	.0123356	20¾	.0682566
Plinth	2½	.00822369	4.	.0131579	21	.0690790
Sub-Base	4	.0131579	4½	.0148027	21½	.0707237

Note:—The frieze of this order is ornamented with **triglyphs** which should be spaced with reference to the columns below in such a manner, that a triglyph is on the axis of every column, and that the intervening space is divided into alternating triglyphs and metopes.

It is important that a triglyph should be placed in every interior angle, half of it on the frieze of one wall and half on the other.

The **mutules** support the corona of the cornice, and should be placed perpendicularly above the triglyphs in order to lend greater majesty to the order.

Proportions of the Triglyph

The width should be 12 parts (Quota 12), which corresponds to the factor .0394737 for the order with the pedestal, and to .0500000 for the order without the pedestal.

The triglyph has two complete angular channels in its face, and half a channel on each side as shown in the accompanying sketch.
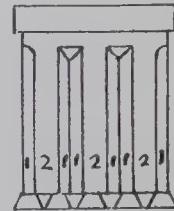
It should be divided into 12 equal parts, one part being allowed for each of the half channels on either side, and the other 10 parts are divided into 5 equal spaces, making 3 faces and 2 channels, as indicated by the sketch.

*Note:—The figures or quota in brackets must not be included in adding the figures for the total height of the order because they are contained in the quota for the member of which they constitute a subordinate part.

Table Two B

THE DORIC ORDER WITH THE PEDESTAL AND DENTILS

80. This table contains the quota and factors for the height and projection of the mouldings of the cornice with Dentils, the architrave, the frieze and the capital,—the other quota and factors may be found in Table Two A (Art. 79, Page 26).

Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
	Quota	Factor	Quota	Factor	Quota	Factor
Cornice						
Fillet	1	.00328948	24	.0789474	34	.111843
Cavetto	3.	.00986843	21	.0690790	31	.101974
Fillet	½	.00164474	20½	.0674343	30½	.100329
			20	.0657895	30	.0986843
Cyma Reversa ..	1	.00328948	19	.0625000	29	.0953948
Corona	4	.0131579	18½	.0608553	28½	.0937500
Fillet	½	.00164474	7	.0230264	17	.0559211
Fillet	½	.00164474	6½	.0213816	16½	.0542764
Fascia of the Dentil.....	3.	.00986843	6	.0197369	16	.0526316
Fillet	½	.00164474	4	.0131579	14	.0460527
			3½	.0115132	13½	.0444079
Cyma Reversa...	2	.00657895	1½	.00493422	11½	.0378290
Capital of Triglyph	2	.00657895	1	.00328948	11	.0361843
Frieze						
Frieze	18	.0592106			10	.0328948
Architrave						
Fillet	2	.00657895	1½	.00493422	11½	.0378290
Fascia	10	.0328948			10	.0328948
Capital						
Fillet	½	.00164474	5½	.0180922	15½	.0509869
			5¼	.0172698	15¼	.0501645
Cyma Reversa...	1	.00328948	4¼	.0139803	14¼	.0468750
Abacus	2½	.00822369	4	.0131579	14	.0460527
Ovolo	2½	.00822369	3¾	.0123356	13¾	.0452303
Fillet	½	.00164474	1¼	.00411185	11¼	.0370066
Fillet	½	.00164474	1	.00328948	11	.0361843
Fillet	½	.00164474	¾	.00246711	10¾	.0353619
Collarino	4	.0131579			10	.0328948

The width of the dentil is 2 parts (quota 2, factor .00657895), the space between dentils is 1 part (quota 1, factor .00328948).

Note:—The column in "Table Two A" and "Table Two B", headed "Modules" and "Quota", give the figures by which the factors were derived.

General Rule:—The proportion for any part of the order is obtained by multiplying the height of the order by the factor for that particular part.

Table Three

THE DORIC ORDER WITH THE PEDESTAL

81.   Method of obtaining the height of the entire order and of all its parts, when we have only one or more parts of the order to work from, as for example the width of the frieze or the height of the base of the column.

If the measure (in meters or feet) of any member is known, we divide this measure by the standard quota for that part and obtain the **factor** for that part. If we then multiply this factor by the total quota for the order to which the part belongs, we obtain the total height of the order in Metric or English units, depending upon which system of measurement we are using.

After having found the height of the order by means of the table below, we turn back to "Table One" and "Table Two" for completion of the details of the whole order.

Metric System $\{$ Meters   Sixteenths   Factor   Meters $\}$ English System
(Millimeters) $\{$ 3.000 $\times$ 629.92 = 1889.76 $\times$ .0015875 = 2.99999999998800 $\}$ (Sixteenths of an Inch)

	Name of Member	Height of Member (Meters)	Height of Member (Quota)	Factor	Total Quota	Height of Order		Name of Member	Height of Member (Sixteenths)	Height of Member (Quota)	Factor	Total Quota	Height of Order
Order	Entablature	.4737÷	48=	.00986875×	304=	3.0001	**Order**	Entablature	298.38÷	48=	6.21625×	304=	1889.74
	Column	1.8947	192	.00986823	"	2.9999		Column	1193.52	192	6.21625	"	1889.74
	Pedestal	.6316	64	.00986875	"	3.0001		Pedestal	397.85	64	6.21640	"	1889.79
		3.0000	304						1889.75	304			
Entablature	Cornice	.1776	18	.00986666	"	2.9995	**Entablature**	Cornice	111.89	18	6.21611	"	1889.70
	Frieze	.1776	18	.00986666	"	2.9995		Frieze	111.89	18	6.21611	"	1889.70
	Architrave	.1184	12	.00986666	"	2.9995		Architrave	74.60	12	6.21666	"	1889.86
Column	Capital	.1184	12	.00986666	"	2.9995	**Column**	Capital	74.60	12	6.21666	"	1889.86
	Shaft	1.6579	168	.00986845	"	3.0000		Shaft	1044.34	168	6.21631	"	1889.76
	Base	.1184	12	.00986666	"	2.9995		Base	74.60	12	6.21666	"	1889.86
Pedestal	Cap	.0592	6	.00986666	"	2.9995	**Pedestal**	Cap	37.30	6	6.21666	"	1889.86
	Dado	.4737	48	.00986875	"	3.0001		Dado	298.38	48	6.21625	"	1889.74
	Basement	.0987	10	.00987000	"	3.0005		Basement	62.16	10	6.21600	"	1889.66
									1889.76	304			
Diameters	Upper Diam	.1974	20	.00987000	"	3.0005	**Diameters**	Upper Diam	124.33	20	6.21650	"	1889.82
	Lower Diam	.2368	24	.00986666	"	2.9995		Lower Diam	149.19	24	6.21625	"	1889.74

The above tables correspond to Plate XIII.

Table Four

THE DORIC ORDER WITHOUT THE PEDESTAL

82. This table contains the quota and factors for the height and the projection of the members of the order.

Name of Member	Measure in Modules	Height		Projection From Face of Column		Axis of Column Projection From	
		Quota	Factor	Quota	Factor	Quota	Factor
Order							
Entablature	4	48	.200000	24	.100000	34	.141667
						10	.0416667
Column	16	192	.800000			12	.0500000
	20	240					
Entablature							
Cornice	1.6	18	.0750000	24	.100000	34	.141667
Frieze	1.6	18	.0750000			10	.0416667
Architrave	1.	12	.0500000	2	.00833334	12	.0500000
Column							
Capital	1	12	.0500000	5½	.0229167	15½	.0645834
						10	.0416667
Shaft	14	168	.700000			12	.0500000
Base	1	12	.0500000	5	.0208334	17	.0708334
	20	240					
Diameters							
Upper Diam.....	1.8	20	.0833334			10	.0416667
Lower Diam......	2	24	.100000			12	.0500000

Note:—The columns in the accompanying table headed "Modules" and "Quota", give the figures by which the factors were derived.

General Rule:—The proportions for any part of the order are obtained by multiplying the height of the order by the factor for that particular part.

The height of the Doric Order without the Pedestal is 20 modules. The module is divided into 12 parts. The total quota therefore corresponds to 240 parts.

To avoid confusion with the order including the pedestal, the above table gives the factors to be used exclusively with the order without the pedestal, and exactly the same proportions are obtained in each case

Table Five A

THE DORIC ORDER WITHOUT THE PEDESTAL (WITH MUTULES)

83 This table contains the quota and the factors for the height and the projection of the mouldings of the Doric Order.

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Quota	Factor	Quota	Factor	Quota	Factor
Cornice	Fillet	1	.00416667	24	.100000	34	.141667
	Cyma Recta.......	3	.0125000				
	Fillet	½	.00208334	21	.0875000	31	.129167
				20¾	.0864584	30¾	.128125
	Cyma Reversa....	1	.00416667	19¾	.0822917	29¾	.123959
	Corona	3½	.0145834	19½	.0812500	29½	.122917
				19	.0791667	29	.120834
	Cyma Reversa.....	1	.00416667	18¼	.0760417	28¼	.117709
	Mutule	3	.0125000	18	.0750000	28	.116667
	Fascia of Mutule						
	Fillet	½	.00208334	4	.0166667	14	.0583334
	Ovolo	2	.00833334	3½	.0145834	13½	.0562500
	Fillet	½	.00208334	1½	.00625000	11½	.0479167
	Capital of Triglyph	2	.00833334	¾	.00312500	10¾	.0447917
Frieze	Frieze	18	.0750000			10	.0416667
Architrave	Fillet	2	.00833334	2	.00833334	12	.0500000
	Fascia²	6	.0250000	½	.00208334	10½	.0437500
	Fascia¹	4	.0166667			10	.0416667
Capital	Fillet	½	.00208334	5½	.0229167	15½	.0645834
				5¼	.0218750	15¼	.0635417
	Cyma Reversa.....	1	.00416667	4¼	.0177084	14¼	.0593750
	Abacus	2½	.0104167	4	.0166667	14	.0583334
				3¾	.0156250	13¾	.0572917
	Ovolo	2½	.0104167	1¼	.00520834	11¼	.0468750
	Astragal	1	.00416667	1½	.00625000	11½	.0479167
	Fillet	½	.00208334	¾	.00312500	10¾	.0447917
	Collarino	4	.0166667			10	.0416667
Shaft	Astragal	1 }*	.00416667 }*	1¾	.00729167	11¾	.0489584
	Fillet	½ }	.00208334 }	1	.00416667	11	.0458334
	Shaft	168	.700000				
	Upper Diam......	20 }*	.0833334 }*			10	.0416667
	Lower Diam......	24 }	.100000 }			12	.0500000
Base	Fillet	1	.00416667	1¾	.00729167	13¾	.0572917
	Reed	1	.00416667	2½	.0104167	14½	.0604167
	Torus	4	.0166667	5	.0208334	17	.0708334
	Plinth	6	.0250000	5	.0208334	17	.0708334

*Note:—The figures or quota in brackets must not be included when adding the figures for the total height of the order, because they are contained in the quota for the member of which they constitute subordinate parts.

Table Five B

THE DORIC ORDER WITHOUT THE PEDESTAL (WITH DENTILS)

84. This table contains the quota and factors for the height and projection of the mouldings of the cornice with dentils, the architrave, the frieze and the capital,—the other quota and factors may be found in "Table Five A" (Art. 83, Page 30)

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Quota	Factor	Quota	Factor	Quota	Factor
Cornice	Fillet	1	.00416667	24	.100000	34	.141667
	Cavetto	3	.0125000	21	.0875000	31	.129167
	Fillet	½	.00208334	20½	.0854167	30½	.127084
				20	.0833334	30	.125000
	Cyma Reversa..........	1.	.00416667	19	.0791667	29	.120834
	Corona	4	.0166667	18½	.0770834	28½	.118750
	Fillet	½	.00208334	7	.0291667	17	.0708334
	Fillet	½	.00208334	6½	.0270837	16½	.0687500
	Fascia of Dentil........	3	.0125000	6	.0250000	16	.0666667
	Fillet	½	.00208334	4	.0166667	14	.0583334
				3½	.0145834	13½	.0562500
	Cyma Reversa..........	2	.00833334	1½	.00625000	11½	.0479167
	Capital of Triglyph.....	2	.00833334	1	.00416667	11	.0458334
Frieze	Frieze	18	.0750000			10	.0416667
Architrave	Fillet	2	.00833334	1½	.00625000	11½	.0479167
	Fascia	10	.0416667			10	.0416667
Capital	Fillet	½	.00208334	5½	.0229167	15½	.0645834
				5¼	.0218750	15¼	.0635417
	Cyma Reversa..........	1.	.00416667	4¼	.0177084	14¼	.0593750
	Abacus	2½	.0104167	4	.0166667	14	.0583334
	Ovolo	2½	.0104167	3¾	.0156250	13¾	.0572917
	Fillet	½	.00208334	1¼	.00520834	11¼	.0468750
	Fillet	½	.00208334	1	.00416667	11	.0458334
	Fillet	½	.00208334	¾	.00312500	10¾	.0447917
	Collarino	4.	.0166667			10	.0416667

The width of the dentils is 2 parts (quota 2, factor .00833334), the space between dentils is 1 part (quota 1, factor .00416667).

Table Six

THE DORIC ORDER WITHOUT THE PEDESTAL

85. These tables may be used for restoration of the Doric Order without the pedestal, in the same manner as is explained under "Table Three" (Art. 81, Page 28)

Metric System (Millimeters) $\left\{\begin{array}{l}\text{Meters} \\ 2.3684\end{array}\right.$ × 629.92 = Sixteenths 1491.90 × Factor .0015875 = Metrs 2.36839598678250 $\left.\begin{array}{r}\\ \end{array}\right\}$ English System (Sixteenths of an Inch)

	Name of Member	Height of Member		Factor	Total Quota	Height of Order			Name of Member	Height of Member		Factor	Total Quota	Height of Order
		Meters	Quota							Sixteenths	Quota			
Order	Entablature	.4737÷	48=	.00986875×	240=	2.3685		**Order**	Entablature	298.38÷	48=	6.21625×	240=	1491.90
	Column	1.8947	192	.00986823	"	2.3684			Column	1193.52	192	6.21625	"	1491.90
		2.3684	240							1491.90	240			
Entablature	Cornice	.1776	18	.00986666	"	2.3680		**Entablature**	Cornice	111.89	18	6.21611	"	1491.87
	Frieze	.1766	18	.00986666	"	2.3680			Frieze	111.89	18	6.21611	"	1491.87
	Architrave	.1184	12	.00986666	"	2.3680			Architrave	74.60	12	6.21666	"	1491.99
Column	Capital	.1184	12	.00986666	"	2.3680		**Column**	Capital	74.60	12	6.21666	"	1491.99
	Shaft	1.6579	168	.00986845	"	2.3684			Shaft	1044.34	168	6.21631	"	1491.91
	Base	.1184	12	.00986666	"	2.3680			Base	74.60	12	6.21666	"	1491.99
		2.3683	240							1491.92	240			
Diameters	Upper Diam.	.1974	20	.00987000	"	2.3688		**Diameters**	Upper Diam.	124.33	20	6.21650	"	1491.96
	Lower Diam.	.2368	24	.00986666	"	2.3680			Lower Diam.	149.19	24	6.21625	"	1491.90

The above tables correspond to Plate XIII.

Table Seven

INTERCOLUMNIATION WITH THE DORIC ORDER

86. These tables contain the quota and factors of architecture for the distance between, and for the height of columns,—also the width and height of arches.

Kinds of Intercolumniation	Distance From Axis to Axis			Distance From Column to Column			Space Between Piers			Height of Opening			Height of Impost		
	Modules	Quota	Factor	Modules	Quota	Factor	Modules	Quota	Factor	Modules	Quota	Factor	Modules	Quota	Factor
Simple Intercolumniation.....	7.6	90	.375000	5.6	66	.275000	5.6	66	.275000	16	192	.800000			
Arcade Without Pedestal....	10.	120	.500000	8.	96	.400000	7.	84	.350000	14.	168	.700000	10.6	126	.525000
	*10.6	126	.525000	8.6	102	.425000									
Arcade With Pedestal........	15.	180	.592106	13.	156	.513158	10.	120	.394737	20	240	.789474	15	180	.592106

*Factors for increased width of "alette."

Impost and Archivolt for Arcade **without** Pedestal.

Impost F=.0500000=Quota 12
Archivolt F=.0291667=Quota 7

Name of Moulding	Height		Projection	
	Quota	Factor	Quota	Factor
Fillet	1.	.00416667	4¼	.0177084
			3¾	.0156250
Ovolo	2½	.0104167	1¼	.00520834
Reed	1.	.00416667	1¾	.00729167
Fillet	½	.00208334	1¼	.00520834
Fascia²	4.	.0166667	¾	.00312500
Fascia¹	3	.0125000	½	.00208334
Fillet	1	.00416667	3	.0125000
			2½	.0104167
Cyma Reversa..	2	.00833334	½	.00208334
Fascia	4	.0166667		

Note:—The visable face of the pier, between the column and the opening, (called alette), appears too small with Vignola's proportions. A better effect is obtained by using the factor for the larger quota in the accompanying tables.

Impost and Archivolt for Arcade **with** Pedestal

Impost F=.0394737=Quota 12
Archivolt

Name of Moulding	Height		Projection	
	Quota	Factor	Quota	Factor
Fillet	1.	.00328948	4¼	.0139803
			3¾	.0123356
Ovolo	2½	.00822369	1¼	.00411185
Reed	1.	.00328948	1¾	.00575658
Fillet	½	.00164474	1¼	.00411185
Fascia²	4.	.0131579	¾	.00246711
Fascia¹	3.	.00986843	½	.00164474

Archivolt is the same as the Impost.

PART SIX

Table One

THE IONIC ORDER WITH THE PEDESTAL

87.   This table contains the quota and factors of architecture for the height and the projection of the members of the Ionic Order.

	Name of Member	Measure in Modules	Height		Projection From Face of Column		Projection From Axis of Column	
			Quota	Factor	Quota	Factor	Quota	Factor
Order	Entablature	4.9	81	.157895	36	.0701755	51	.0994153
							15	.0292398
	Column	18.	324	.631579			18	.0350878
	Pedestal	6.	108	.210527	10	.0194932	35	.0682262
		28.9	513					
Entablature	Cornice	1.13½	31 ½	.0614036	36	.0701755	51	.0994153
	Frieze	1.9	27	.0526316			15	.0292398
	Architrave	1.4½	22½	.0438597	5	.00974659	20	.0389864
Column	Capital	.15	15	.0292398	5	.00974659	20	.0389864
							15	.0292398
	Shaft	16.3	291	.567252			18	.0350878
	Base	1.	18	.0350878	7	.0136453	25	.0487330
Pedestal	Cap	.9	9	.0175439	10	.0194932	35	.0682262
	Dado	5.	90	.175439			25	.0487330
	Basement	.9	9	.0175439	8	.0155946	33	.0643275
		28.9	513					
Diameters	Upper Diam.........	1.12	30	.0584796			15	.0292398
	Lower Diam.........	2.	36	.0701755			18	.0350878

Note:—The columns in the accompanying tables headed "Modules" and "Quota", give the figures by which the factors were derived.

General Rule:—The proportions for any part of the order are obtained by multiplying the height of the order by the factor for that particular part.

Scamozzi improved the Ionic capital by making the volutes similar to those in the composite order, so that all four faces appear alike, and obtained a good effect by making the change.

BRIEF HISTORY OF THE IONIC ORDER

Vetruvius says that the Greeks, who invented the Ionic Order gave it very good proportions. It is indesputable that the volutes of the capital were derived from the spirals or scrolls into which women sometimes shape their hair when dressing it.

Proportions:—Vignola made the height of this order 28 modules and 9 parts. He divided the module into 18 parts. The total quota for the height of the order is therefore 513 parts. The entablature is ¼ the height of the column and the pedestal is ⅓ the height of the column.

Table Two A

THE ANTIQUE IONIC ORDER WITH THE PEDESTAL (AND DENTILS)

88. This table contains the quota and the factors for the height and the projection of the mouldings of the Ionic Order.

Name of Moulding	Height Quota	Height Factor	Proj. Face Quota	Proj. Face Factor	Proj. Axis Quota	Proj. Axis Factor
Cornice						
Fillet	1½	.00292398	36	.0701755	51	.0994153
Cyma Recta	5	.00974659				
Fillet	½	.000974659	30½	.0596542	45½	.0886940
			30	.0584796	45	.0877193
Cyma Reversa	2.	.00389864	28½	.0555556	43½	.0847954
Corona	6.	.0116960	28	.0545809	43	.0838207
			14	.0272905	29	.0565303
Ovolo	4	.00779728	10	.0194932	25	.0487330
Reed	1	.00194932	10½	.0204679	25½	.0497077
Fillet	½	.000974659	10	.0194932	25	.0487330
Dentil	6.	.0116960	9½	.0185186	24½	.0477583
Fillet	1.	.00194932	5½	.0107213	20½	.0399611
			5	.00974659	20	.0389864
Cyma Reversa	4	.00779728	¾	.00146199	15¾	.0307018
Frieze						
Frieze	27	.0526316			15	.0292398
Architrave						
Fillet	1½	.00292398	5	.00974659	20	.0389864
			4½	.00877193	19½	.0380117
Cyma Reversa	3	.00584796	2	.00389864	17	.0331385
Fascia³	7½	.0146199	1½	.00292398	16½	.0321638
Fascia²	6	.0116960	¾	.00146199	15¾	.0307018
Fascia¹	4½	.00877193			15	.0292398
Capital						
Fillet	1	.00194932	5	.00974659	20	.0389864
			4½	.00877193	19½	.0380117
Cyma Reversa	2	.00389864	3	.00584796	18	.0350878
Fillet	1	.00194932	2½	.00487330	17½	.0341131
Channel of Volute	3	.00584796			15	.0292398
			7	.0136453	22	.0428850
Ovolo	5	.00974659	2	.00389864	17	.0331385
Astragal	2	.00389864	3	.00584796	18	.0350878
Fillet	1	.0194932	2	.00389864	17	.0331385
Shaft						
Astragal	2 }*	.00389864 }*	3	.00584796	18	.0350878
Fillet	1 }	.00194932 }	2	.00389864	17	.0331385
Shaft	291	.567252				
Fillet	1½ }	.00292398 }	2	.00389864	20	.0389864
Upper Diam	30 }*	.0584796 }*			15	.0292398
Lower Diam	36 }	.0701755 }			18	.0350878

Name of Moulding	Height Quota	Height Factor	Proj. Face Quota	Proj. Face Factor	Proj. Axis Quota	Proj. Axis Factor
Base						
Torus	5	.00974659	5	.00974659	23	.0448344
Fillet	¼	.000487330	2½	.00487330	20½	.0399611
Upper Scotia	2	.00389864				
Fillet	¼	.000487330	4½	.00877193	22½	.0438597
			5	.00974659	23	.0448344
2 Reeds	2	.00389864	5	.00974659	23	.0448344
Fillet	¼	.000487330	4½	.00877193	22½	.0438597
Lower Scotia	2	.00389864				
Fillet	¼	.000487330	6½	.0126706	24½	.0477583
Plinth	6	.0116960	7	.0136453	25	.0487330
Cap						
Fillet	½	.000974659	10	.0194932	35	.0682262
			9½	.0185186	34½	.0672515
Cyma Reversa	1½	.00292398	8¼	.0160819	33¼	.0648149
Corona	3	.00584796	8	.0155946	33	.0643275
			5	.00974659	30	.0584796
Ovolo	3	.00584796	2	.00389864	27	.0526316
Reed	1	.00194932	2½	.00487330	27½	.0536063
Dado						
Fillet	1	.00194932	1½	.00292398	26½	.0516570
Dado	88	.171540			25	.0487330
Fillet	1	.00194932	2	.00389864	27	.0526316
Sub-Base						
Reed	1½	.00292398	3	.00584796	28	.0545809
			2	.00389864	27	.0526316
Cyma Recta	3	.00584796	7	.0136453	32	.0623787
Fillet	½	.000974659	7	.0136453	32	.0623787
Plinth	4	.00779728	8	.0155946	33	.0643275

*Note:—The figures or quota in brackets must not be included when adding the figures for the total height of the order, because they are contained in the quota for the members of which they constitute subordinate parts.

For Substitution of Modern Base

Name of Moulding	Height Quota	Height Factor	Proj. Face Quota	Proj. Face Factor	Proj. Axis Quota	Proj. Axis Factor
Modern Base						
Upper Torus	3½	.00682262	4¼	.00828461	22¼	.0433724
Fillet	½	.000974659	2½	.00487330	20½	.0399611
Scotia	3	.00584796				
Fillet	½	.000974659	4	.00779728	22	.0428850
Lower Torus	4½	.00877193	7	.0136453	25	.0487330
Plinth	6	.0116960	7	.0136453	25	.0487330

Table Two B

THE MODERN IONIC ORDER WITH THE PEDESTAL (AND MODILLIONS)

89.   This table contains the quota and the factors for the height and the projection of the mouldings of the Ionic Order.

	Name of Moulding	Height Quota	Height Factor	Proj. From Face Quota	Proj. From Face Factor	Proj. From Axis Quota	Proj. From Axis Factor
Cornice	Fillet	1½	.00292398	38	.0740741	53	.103314
	Cyma Recta	4.	.00779728				
	Fillet	½	.000974659	34	.0662769	49	.0955166
				33½	.0653022	48½	.0945420
	Cyma Reversa	1¼	.00243665	32	.0623782	47	.0916180
	Corona	6.	.0116960	31½	.0614036	46½	.0906433
				31¼	.0609162	46¼	.0901560
	Cyma Reversa	1.	.00194932	29¾	.0579923	44¾	.0872320
	Modillions	4½	.00877193	29½	.0575049	44½	.0867447
	Fillet	½	.000974659	13¼	.0258285	28¼	.0550683
				12¾	.0248539	27¾	.0540956
	Ovolo	3¾	.00730995	9	.0175439	24	.0467837
	Fillet	½	.000974659	9	.0175439	24	.0467837
	Dentils	4½	.00877193	8½	.0165693	23½	.0458090
	Fillet	½	.000974659	4½	.00877193	19½	.0380117
				4	.00779728	19	.0370371
	Cyma Reversa	3	.00584796	1½	.00292398	16½	.0321638
Frieze	Fillet	1	.00194932	1	.00194932	16	.0311891
	Frieze	26	.0506823			15	.0292398
Architrave	Fillet	1½	.00292398	5	.00974659	20	.0389864
				4½	.00877193	19½	.0380117
	Cyma Reversa	2½	.00487330	1½	.00292398	16½	.0321638
	Reed	1.	.00194932	2	.00389846	17	.0331385
	Fascia³	7½	.0146199	1½	.00292398	16½	.0321638
	Fascia²	6	.0116960	¾	.00146199	15¾	.0307018
	Fascia¹	4	.00779728			15	.0292398
Capital	Ovolo	1¾	.00341131	9¾	.0190059	24¾	.0482457
	Reed	¾	.00146199	8	.0155946	23	.0448344
	Abacus	3½	.00682262	6	.0116960	21	.0409357
	Channel	2	.00389864			15	.0292398
				6	.0116960	21	.0409357
	Ovolo	4	.00779728	2	.00389864	17	.0331385
	Astragal	2	.00389864	3	.00584796	18	.0350878
	Fillet	1	.00194932	2	.00389864	17	.0331385
Shaft	Astragal	2 }*	.00389864 }*	3	.00584796	18	.0350878
	Fillet	1	.00194932	2	.00389864	17	.0331385
	Shaft	291	.567252				
	Fillet	1½	.00292398	2	.00389864	20	.0389864
	Upper Diam	30 *	.0584796 *			15	.0292398
	Lower Diam	36	.0701755			18	.0350878

	Name of Moulding	Height Quota	Height Factor	Proj. From Face Quota	Proj. From Face Factor	Proj. From Axis Quota	Proj. From Axis Factor
Base	Upper Torus	3½	.00682262	4¼	.00828461	22¼	.0443724
	Fillet	½	.000974659	2½	.00487330	20½	.0399611
	Scotia	3	.00584796				
	Fillet	½	.000974659	4	.00779728	22	.0428850
	Lower Torus	4½	.00877193	7	.0136453	25	.0487330
	Plinth	6	.0116960	7	.0136453	25	.0487330
Cap	Fillet	½	.000974659	10	.0194932	35	.0682262
				9½	.0185186	34½	.0672515
	Cyma Reversa	1½	.00292398	8¼	.0160819	33¼	.0648149
	Corona	3	.00584796	8	.0155946	33	.0643275
				5	.00974659	30	.0584796
	Ovolo	3	.00584796	2	.00389864	27	.0526316
	Reed	1	.00194932	2½	.00487330	27½	.0536063
Dado	Fillet	1	.00194932	1½	.00292398	26½	.0516570
	Dado	88	.171540			25	.0487330
	Fillet	1	.00194932	2	.00389864	27	.0526316
Sub-Base	Reed	1½	.00292398	3	.00584796	28	.0545809
				2	.00389864	27	.0526316
	Cyma Recta	3	.00584796	7	.0136453	32	.0623782
	Fillet	½	.000974659	7	.0136453	32	.0623782
	Plinth	4	.00779728	8	.0155946	33	.0643275

*Note:—The figures or quota in brackets must not be included when adding the figures for the total height of the order, because they are contained in the quota for the member of which they consitiute subordinate parts.

Table Three

90.　　This table is exclusively for the construction of the capital of the Ionic Order (Antique and Modern—with and without the Pedestal).

It contains the quota and factors for the height and projection of the mouldings, volutes, etc., of the capital.

Capital for the Order with the Pedestal		Capital for the Order without the Pedestal	
Quota	Factor	Quota	Factor
¾	.00146199	¾	.00185186
1	.00194932	1	.00246914
1½	.00292398	1½	.00370371
2	.00389864	2	.00493828
2¼	.00438597	2¼	.00555556
2½	.00487330	2½	.00617284
3	.00584796	3	.00740741
4	.00779728	4	.00987655
4½	.00877193	4½	.0111112
5	.00974659	5	.0123457
5½	.0107213	5½	.0135803
6	.0116960	6	.0148149
7	.0136453	7	.0172840
7¼	.0141326	7¼	.0179013
7½	.0146199	7½	.0185186
8	.0155946	8	.0197531
8½	.0165693	8½	.0209877
9	.0175439	9	.0222223
9½	.0185186	9½	.0234568
10	.0194932	10	.0246914
10½	.0204679	10½	.0259260
11	.0214425	11	.0271605
11½	.0224172	11½	.0283951
12	.0233919	12	.0296297
12½	.0243665	12½	.0308642
14	.0272905	14	.0345680
15	.0292398	15	.0370371
16	.0311891	16	.0395062
16¼	.0316765	16¼	.0401235
16½	.0321638	16½	.0407408
17	.0331385	17	.0419757
17½	.0341131	17½	.0432099
18	.0350878	18	.0444445
19½	.0380117	19½	.0481482
20	.0389864	20	.0493820
21	.0409357	21	.0518519
22	.0428850	22	.0543210
23	.0448344	23	.0567902
24½	.0477583	24½	.0604939
25	.0487330	25	.0617284
26½	.0516570	26½	.0654321
27	.0526316	27	.0666667
29	.0565303	29	.0716050
1¾	.00341131	1¾	.00432099
3½	.00682262	3½	.00864198
9¾	.0190059	9¾	.0240741
24¾	.0482457	24¾	.0611112

Note:—These tables serve to facilitate the construction of the fine details of the Ionic Capital, the figures for which could not be given under "Table Two".

For illustration corresponding to the tables on this page, see "Plate XVI". The quota on the design are an aid toward finding the corresponding factor for the construction of the capital.

Table Four

THE IONIC ORDER WITH THE PEDESTAL

91. Method of obtaining the height of the entire order and of all its parts, when we have only one or more parts of the order to work from, as for example the width of the frieze or the diameter of the shaft.

If the measure (in meters or feet) of any member is known, we divide this measure by the standard quota for such a member and obtain the **factor** corresponding to it. If we then multiply this factor by the total quota for the order to which the member belongs, we obtain the total height of the order in metric or English units, depending upon which system of measurement we are using.

After having found the height of the order by means of the table below, we turn back to "Table One" and "Table Two" for completion of the details of the whole order.

Metric System (Millimeters) $\{$ Meters $5.000 \times 629.92 = 3149.60 \times$ Factor $.0015875 = 4.99999999998000$ $\}$ Metrs (Sixteenths of an Inch) English System

	Name of Member	Height of Member		Factor	Total Quota	Height of Order		Name of Member	Height of Member		Factor	Total Quota	Height of Order
		Meters	Quota						Sixteenths	Quota			
Order	Entablature	.7895÷	81=	.00974691×	513=	5.0002	**Order**	Entablature	497.31÷	81=	6.13963×	513=	3149.63
	Column	3.1579	324	.00974661	"	5.0000		Column	1989.22	324	6.13979	"	3149.71
	Pedestal	1.0526	108	.00974629	"	4.9998		Pedestal	663.08	108	6.13963	"	3149.63
		5.0000	513						3149.61	513			
Entablature	Cornice	.3070	31½	.00974603	"	4.9997	**Entablature**	Cornice	193.40	31½	6.13968	"	3149.66
	Frieze	.2632	27	.00974814	"	5.0008		Frieze	165.77	27	6.13963	"	3149.66
	Architrave	.2193	22½	.00974666	"	5.0001		Architrave	138.14	22½	6.13957	"	3149.60
Column	Capital	.1462	15	.00974666	"	5.0001	**Column**	Capital	92.09	15	6.13934	"	3149.48
	Shaft	2.8363	291	.00974670	"	5.0001		Shaft	1786.62	291	6.13958	"	3149.60
	Base	.1754	18	.00974445	"	4.9989		Base	110.51	18	6.13945	"	3149.79
Pedestal	Cap	.0877	9	.00974666	"	5.0001	**Pedestal**	Cap	55.26	9	6.14000	"	3149.82
	Dado	.8772	90	.00974666	"	5.0001		Dado	552.56	90	6.13956	"	3149.59
	Basement	.0877	9	.00974666	"	5.0001		Basement	55.26	9	6.14000	"	3149.82
		5.0000	513						3149.61	513			
Diameters	Upper Diam.	.2924	30	.00974666	"	5.0001	**Diameters**	Upper Diam.	184.19	30	6.13967	"	3149.65
	Lower Diam.	.3509	36	.00974722	"	5.0003		Lower Diam.	221.02	36	6.13950	"	3149.56

The Above Tables Correspond to Plate XV

Note:—The method of obtaining the factors above, is the same in both tables, and while the unit of measure is different, the proportions are exactly alike in both systems of measurement.

Table Five

THE IONIC ORDER WITHOUT THE PEDESTAL

92. The table below contains the quota and factors for the height and the projection of the members of the Ionic Order.

	Name of Member	Measure in Modules	Height		Projection From Face of Column		Projection From Axis of Column	
			Quota	Factor	Quota	Factor	Quota	Factor
Order	Entablature ...	4.9	81	.200000	36	.0888889	51	.125926
							15	.0370371
	Column	18.	324	.800000			18	.0444445
		22.9	405					
Entablature	Cornice	1.13 ½	31½	.0777778	36	.0888889	51	.125926
	Frieze	1.9	27	.0666667			15	.0370371
	Architrave	1.4½	22½	.0555556	5	.0123457	20	.0493828
Column	Capital	.15	15	.0370371	5	.0123457	20	.0493828
							15	.0370371
	Shaft	16.3	291	.718519			18	.0444445
	Base	1.	18	.0444445	7	.0172840	25	.0617284
		22.9	405					
Diameters	Upper Diam....	1.12	30	.0740741			15	.0370371
	Lower Diam....	2.	36	.0888889			18	.0444445

Note :—The columns in the accompanying table headed "Modules" and "Quota" give the figures by which the factors were derived.

General Rule :—The proportion for any part of the order is obtained by multiplying the height of the order, by the factor for that particular part.

The height of the Ionic Order without the pedestal is 22 modules and 9 parts. The module is divided into 18 parts. The quota for the total height of the order is therefore 405 parts.

Table Six A

THE IONIC ORDER WITHOUT THE PEDESTAL (ANTIQUE)

93. This table contains the quota and the factors for the height and the projection of the mouldings of the Ionic Order.

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Quota	Factor	Quota	Factor	Quota	Factor
Cornice	Fillet	1½	.00370371	36	.0888889	51	.125926
	Cyma Recta.........	5	.0123457				
	Fillet	½	.00123457	30½	.0753087	45½	.112346
				30	.0470741	45	.111112
	Cyma Reversa.....	2	.00493828	28½	.0703704	43½	.107408
	Corona	6	.0148149	28	.0691359	43	.106173
				14	.0345680	29	.0716050
	Ovolo	4	.00987655	10	.0246914	25	.0617284
	Reed	1	.00246914	10½	.0259260	25½	.0629630
	Fillet	½	.00123457	10	.0246914	25	.0617284
	Dentil	6	.0148149	9½	.0224568	24½	.0604939
	Fillet	1	.00246914	5½	.0135803	20½	.0506173
				5	.0123457	20	.0493828
	Cyma Reversa.....	4	.00987655	¾	.00185186	15¾	.0388889
Frieze	Frieze	27	.0666667			15	.0370371
Architrave	Fillet	1½	.00370371	5	.0123457	20	.0493828
				4½	.0111112	19½	.0481482
	Cyma Reversa.....	3	.00740741	2	.00493828	17	.0419754
	Fascia³	7½	.0185186	1½	.00370371	16½	.0407408
	Fascia²	6	.0148149	¾	.00185186	15¾	.0388889
	Fascia¹	4½	.0111112			15	.0370371
Capital	Fillet	1	.00246914	5	.0123457	20	.0493828
				4½	.0111112	19½	.0481482
	Cyma Reversa.....	2	.00493828	3	.0740741	18	.0444445
	Fillet	1	.00246914	2½	.00617284	17½	.0432099
	Channel of Volute.	3	.00740741			15	.0370371
				7	.0172840	22	.0543210
	Ovolo	5	.0123457	2	.00493828	17	.0419754
	Astragal	2	.00493828	3	.00740741	18	.0444445
	Fillet	1	.00246914	2	.00493828	17	.0419754
Shaft	Astragal	2 }	.00493828 }	3	.00740741	18	.0444445
	Fillet	1 }*	.00246914 }*	2	.00493828	17	.0419754
	Shaft	291	.718519				
	Fillet	1½ }	.00370371 }	2	.00493828	20	.0493828
	Upper Diam........	30 }*	.0740741 }*			15	.0370371
	Lower Diam........	36 }	.0888889 }			18	.0444445

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Quota	Factor	Quota	Factor	Quota	Factor
Base	Torus	5	.0123457	5	.0123457	23	.0567902
	Fillet	¼	.000617284	2½	.00617284	20½	.0506173
	Upper Scotia	2	.00493828				
	Fillet	¼	.000617284	4½	.0111112	22½	.0555556
	2 Reeds.............	2	.00493828	5	.0123457	23	.0567902
				5			
	Fillet	¼	.000617284	4½	.0111112	22½	.0555556
	Lower Scotia......	2	.00493828				
	Fillet	¼	.000617284	6½	.0160494	24½	.0604939
	Plinth	6	.0148149	7	.0172840	25	.0617284

*Note:—The figures or quota in brackets must not be included when adding the figures for the total height of the order, because they are contained in the quota for the member of which they constitute subordinate parts.

For Substitution of Modern Base

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
Modern Base	Upper Torus........	3½	.00864198	4¼	.0104939	22¼	.0549383
	Fillet	½	.00123457	2½	.00617284	20½	.0506173
	Scotia	3	.00740741				
	Fillet	½	.00123457	4	.00987655	22	.0543210
	Lower Torus	4½	.0111112	7	.0172840	25	.0617284
	Plinth	6	.0148149	7	.0172840	25	.0617284

Table Six B

THE IONIC ORDER WITHOUT THE PEDESTAL (MODERN)

94. This table contains the quota and factors for the height and the projection of the mouldings of the Ionic Order.

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Quota	Factor	Quota	Factor	Quota	Factor
Cornice	Fillet	1½	.00370371	38	.0938272	53	.130865
	Cyma Recta	4	.00987655				
	Fillet	½	.00123457	34	.0833907	49	.120988
				33½	.0827161	48½	.119754
	Cyma Reversa	1¼	.00308642	32	.0790124	47	.116050
	Corona	6	.0148149	31½	.0777778	46½	.114815
				31¼	.0771605	46¼	.114198
	Cyma Reversa	1	.00246914	29¾	.0734568	44¾	.110494
	Modillions	4½	.0111112	29½	.0728396	44½	.109877
	Fillet	½	.00123457	13¼	.0327161	28¼	.0697531
	Ovolo	3¾	.00925926	12¾	.0314815	27¾	.0685186
	Fillet	½	.00123457	9	.0222223	24	.0592593
	Dentils	4½	.0111112	8½	.0209877	23½	.0580247
	Fillet	½	.00123457	4½	.0111112	19½	.0481482
				4	.00987655	19	.0469163
	Cyma Reversa	3	.00740741	1½	.00370371	16½	.0407408
Frieze	Fillet	1	.00246914	1	.00246914	16	.0395062
	Frieze	26	.0641974			15	.0370371
Architrave	Fillet	1½	.00370371	5	.0123457	20	.0493828
				4½	.0111112	19½	.0481482
	Cyma Reversa	2½	.00617284	1½	.00370371	16½	.0407408
	Reed	1	.00246914	2	.00493828	17	.0419754
	Fascia³	7½	.0185186	1½	.00370371	16½	.0407408
	Fascia²	6	.0148149	¾	.00185186	15¾	.0388889
	Fascia¹	4	.00987655			15	.0370371
Capital	Ovolo	1¾	.00432099	9¾	.0240741	24¾	.0611112
	Reed	¾	.00185186	8	.0197531	23	.0567902
	Abacus	3½	.00864198	6	.0148149	21	.0515819
	Channel	2	.00493828			15	.0370371
				6	.0148149	21	.0515819
	Ovolo	4	.00987655	2	.00493828	17	.0419757
	Astragal	2	.00493828	3	.00740741	18	.0444445
	Fillet	1	.00246914	2	.00493828	17	.0419754
Shaft	Astragal	2 }*	.00493828 }*	3	.00740741	18	.0444445
	Fillet	1 }	.00246914 }	2	.00493828	17	.0419754
	Shaft	291	.718519				
	Fillet	1½ }	.00370371 }	2	.00493828	20	.0493828
	Upper Diam	30 }*	.0740741 }*			15	.0370371
	Lower Diam	36 }	.0888889 }			18	.0444445

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Quota	Factor	Quota	Factor	Quota	Factor
Base	Upper Torus	3½	.00864198	4¼	.0104939	22¼	.0549383
	Fillet	½	.00123457	2½	.00617284	20½	.0506173
	Scotia	3	.00740741				
	Fillet	½	.00123457	4	.00987655	22	.0543210
	Lower Torus	4½	.0111112	7	.0172840	25	.0617284
	Plinth	6	.0148149	7	.0172840	25	.0617284

*Note:—The figures or quota in brackets must not be included when adding the figures for the total height of the order, because they are contained in the quota for the member of which they constitute subordinate parts.

Table Seven

THE IONIC ORDER WITHOUT THE PEDESTAL

95. These tables may be used for restoration of the Ionic Order without the pedesdal, in the same manner as is explained under "Table Four" (Art. 91, Page 38.) The above tables correspond to Plate XV.

Metric System (Millimeters) { Meters 3.9474 × Sixteenths 629.92 = 2486.55 × Factor .0015875 = Meters 3.94740601979625 } English System (Sixteenths of an Inch)

	Name of Member	Height of Member		Factor	Total Quota	Height of Order
		Meters	Quota			
Order	Entablature	.7895÷	81 =	.00974691×	405=	3.9475
	Column	3.1579	324	.00974661	"	3.9474
		3.9474	405			
Entablature	Cornice	.3070	31½	.00974603	"	3.9471
	Frieze	.2632	27	.00974814	"	3.9480
	Architrave	.2193	22½	.00974666	"	3.9474
Column	Capital	.1462	15	.00974666	"	3.9474
	Shaft	2.8363	291	.00974670	"	3.9474
	Base	.1754	18	.00974445	"	3.9465
		3.9474	405			
Diameters	Upper Diam.............	.2924	30	.00974666	"	3.9474
	Lower Diam.............	.3509	36	.00974722	"	3.9476

	Name of Member	Height of Member		Factor	Total Quota	Height of Order
		Sixteenths	Quota			
Order	Entablature	497.31÷	81 =	6.13963×	405=	2486.55
	Column	1989.22	324	6.13979	"	2486.71
		2486.53	405			
Entablature	Cornice	193.40	31½	6.13968	"	2486.57
	Frieze	165.77	27	6.13963	"	2486.55
	Architrave	138.14	22½	6.13957	"	2486.53
Column	Capital	92.09	15	6.13934	"	2486.43
	Shaft	1786.62	291	6.13958	"	2486.57
	Base	110.51	18	6.13945	"	2486.48
		2486.53	405			
Diameters	Upper Diam.............	184.19	30	6.13967	"	2486.57
	Lower Diam.............	221.02	36	6.13950	"	2486.50

Table Eight

INTERCOLUMNIATION WITH THE IONIC ORDER

96.   These tables contain the quota and factors for the distance between, and for the height of columns,—also the width and height of the arches.

Kinds of Intercolumniation	Distance From Axis to Axis			Distance From Column to Column			Space Between Piers			Height of Opening			Height of Impost		
	Modules	Quota	Factor	Modules	Quota	Factor	Modules	Quota	Factor	Modules	Quota	Factor	Modules	Quota	Factor
Simple Intercolumniation	6.9	117	.288889	4.9	81	.200000	4.9	81	.200000	18.	324	.800000			
Arcade Without Pedestal........	11.9 / *12.	207 / 216	.511112 / .533334	9.9 / 10.	171 / 180	.422223 / .444445	8.9	153	.377778	17.	306	.755556	12.13 ½	229½	.566667
Arcade With Pedestal...........	15.	270	.526316	13.	234	.456141	11.	198	.385965	22.	396	.771930	16.9	297	.578948

*Factors for increased width of "alette".

Impost and Archivolt for Arcade **without** Pedestal

Impost F=.044445=Quota 18

Name of Moulding	Height		Projection	
	Quota	Factor	Quota	Factor
Fillet	1	.00246914	6 / 5½	.0148149 / .0135803
Cyma Reversa.	1½	.00370371	4¼	.0104939
Fascia³	3	.00740741	4 / 3½	.00987655 / .00864198
Ovolo	2	.00493828	1½	.00370371
Reed	1	.00246914	2	.00493828
Fillet	½	.00123457	1½	.00370371
Fascia²	5.	.0123457	1	.00246914
Fascia¹	4	.00987655	½	.00123457

Archivolt F=.0222223=Quota 9

Name of Moulding	Height		Projection	
Fillet	1½	.00370371	3 / 2½	.00740741 / .00617184
Cyma Reversa..	2	.00493828	3½	.00123457
Fascia	5½	.0135803		

*Note:—The visible face of the pier, between the column and the opening (called alette), appears too narrow with Vignola's proportions. A better effect is obtained by using the factor for the larger quota in the accompanying tables.

Impost and Archivolt for Arcade **with** Pedestal

Impost F=.0350878=Quota 18

Name of Moulding	Height		Projection	
	Quota	Factor	Quota	Factor
Fillet	1	.00194932	6 / 5¼	.0116960 / .0107213
Cyma Reversa.	1½	.00292398	4¼	.00828461
Fascia³	3	.00584796	4 / 3½	.00779728 / .00682262
Ovolo	2	.00389864	1½	.00292398
Reed	1	.00194932	2	.00389864
Fillet	½	.000974659	1½	.00292398
Fascia²	5	.00974659	1	.00194932
Fascia¹	4	.00779728	½	.000974659

Archivolt F=.0350878=Quota 18

Name of Moulding	Height		Projection	
Fillet	1½	.00292398	4½ / 4	.00877193 / .00779728
Cyma Reversa.	3	.00584796	1½	.00292398
Fascia²	7½	.0146199	¾	.00146199
Fascia¹	6	.0116960		

PART SEVEN

Table One

THE CORINTHIAN ORDER WITH THE PEDESTAL

97   This table contains the quota and factors of architecture for the height and the projection of the members of the Corinthian Order.

	Name of Member	Measure. in Modules	Height		Projection From Face of Column		Projection From Axis of Column	
			Quota	Factor	Quota	Factor	Quota	Factor
Order	Entablature ...	5.	90	.157895	38	.0666667	53	.0929825
							15	.0263158
	Column	20.	360	.631579			18	.0315790
	Pedestal	6.12	120	.210527	8	.0140351	33	.0578948
		31.12	570					
Entablature	Cornice	2	36	.0631579	38	.0666667	53	.0929825
	Frieze	1½	27	.0473685			15	.0263158
	Architrave	1½	27	.0473685	5	.00877193	20	.0350878
Column	Capital	2⅓	42	.0736843	12½	.0219299	27½	.0482457
							15	.0263158
	Shaft	16⅔	300	.526316			18	.0315790
	Base	1	18	.0315790	7	.0122808	25	.0438597
Pedestal	Cap	.14	14	.0245615	8	.0140351	33	.0578948
	Dado	5.4	94	.164913			25	.0438597
	Basement	.12	12	.0210527	8	.0140351	33	.0578948
		31.12	570					
Diameters	Upper Diam...	1.12	30	.0526316			15	.0263158
	Lower Diam...	2.	36	.0631579			18	.0315790

Note:—The columns in the accompanying table headed "Modules" and "Quota" give the figures by which the factors were derived.

General Rules:—The proportion for any part of the orders is obtained by multiplying the height of the order by the factor for that particular part.

BRIEF HISTORY OF THE CORINTHIAN ORDER

Vetruvius resembles the Corinthian Order to a virgin of fresh and tender years, delicately formed and beautifully proportioned, delightful and charming to the observer and lovely and graceful in her manners.

The same author, when describing the capital, says he thinks it originated from a composition which perhaps came about in this manner: Friends of a departed Corinthian girl set a basket of her preferred fruits before her tomb, and covered it with a stone slab. Acanithus leaves soon grew up, enveloping the basket and curled into delicate scrolls where the slab interfered with their upright growth. An artist or sculptor was impressed with the beauty of the unique composition, and from it he developed the graceful capital of the Corinthian Order.

Proportions: Vignola made the height of this order 32 modules. He made the pedestal six parts taller than in all the other orders. It seems more logical to make the pedestal the same proportion as in the other orders, in which case the total height of the order should be 31⅔ modules; since the module is divided into 18 parts, the total quota then becomes 570 parts. The entablature is then ¼ and the pedestal ⅓ the height of the column.

By placing the order as described above, upon a sub-base (or zoccolo) six parts high, we have the total order as tall as Vignola made it, namely 32 modules.

Table Two

THE CORINTHIAN ORDER WITH THE PEDESTAL

98. These tables contain the quota and factors for the height and the projection of the mouldings of the Corinthian Order.

Left Table

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Quota	Factor	Quota	Factor	Quota	Factor
Cornice	Fillet	1	.00175439	38	.0666667	53	.0929825
	Cyma Recta	5	.00877193				
	Fillet	½	.000877193	33	.0578948	48	.0842106
				32¾	.0574562	47¾	.0837720
	Cyma Reversa	1½	.00263158	31½	.0552632	46½	.0815790
	Corona	5	.00877193	31¼	.0548246	46¼	.0811404
				31	.0543860	46	.0807018
	Cyma Reversa	1½	.00263158	30	.0526316	45	.0789474
	Modillions	6	.0105264	29¾	.0521930	44¾	.0785088
	Fillet	½	.000877193	14	.0245615	29	.0508772
				13½	.0236843	28½	.0500000
	Ovolo	4	.00701755	9½	.0166667	24½	.0429825
	Reed	1	.00175439	10	.0175439	25	.0438597
	Fillet	½	.000877193	9½	.0166667	24½	.0429825
	Dentils	6	.0105264	9	.0157895	24	.0421053
	Fillet	½	.000877193	5	.00877193	20	.0350878
				4½	.00789474	19½	.0342106
	Cyma Reversa	3	.00526316	1½	.00263158	16½	.0289474
Frieze	Reed	1	.00175439	1½	.00263158	16½	.0289474
	Fillet	½	.000877193	1	.00175439	16	.0280702
	Frieze	25½	.0447369			15	.0263158
Architrave	Fillet	1	.00175439	5	.00877183	20	.0350878
				4¾	.00833334	19¾	.0346492
	Cyma Reversa	4	.00701755	2	.00350878	17	.0298246
	Reed	1	.00175439	2	.00350878	17	.0298246
	Fascia³	7	.0122808	1½	.00263158	16½	.0289474
				1¼	.00219299	16¼	.0285088
	Cyma Reversa	2	.00350878	¾	.00131579	15¾	.0276316
	Fascia²	6	.0105264	½	.000877193	15½	.0271930
	Reed	1	.00175439	½	.000877193	15½	.0271930
	Fascia¹	5	.00877193			15	.0263158
Capital	Ovolo	2	.00350878	12½	.0219299	27½	.0482457
	Fillet	1	.00175439	10¼	.0179826	25¼	.0442983
	Abacus	3	.00526316	8½	.0149123	23½	.0412281
				4	.00701755	19	.0333334
	Lip	2	.00350878	6	.0105264	21	.0368422
	Cavetto	6	.0105264			21	.0368422
	Channel of Caulicoli	4	.00701755			15	.0263158
	Drop of Upper Leaves	3	.00526316	11½	.0201755	26½	.0464913
	Upper Leaves	9	.0157895				
	Drop of Lower Leaves	3	.00526316	7	.0122808	22	.0385965
	Lower Leaves	9	.0157895				

Right Table

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Quota	Factor	Quota	Factor	Quota	Factor
Shaft	Astragal	2 }	.00350878}	3	.00526316	18	.0315790
	Fillet	1 }*	.00175439}*	1¾	.00307018	16¾	.0293860
	Shaft	300	.526316			15	.0263158
	Fillet	1½ }	.00263158}	2	.00350878	20	.0350878
	Upper Diam	30 }*	.0526316 }*			15	.0263158
	Lower Diam	36 }	.0631579 }			18	.0315790
Base	Upper Torus	3	.00526316	4	.00701755	22	.0385965
	Fillet	¼	.000438597	2½	.00438597	20½	.0359650
	Upper Scotia	1¼	.00219299				
	Fillet	¼	.000438597	2¾	.00482457	20¾	.0364036
	2 Reeds	1¼	.00219299	3½	.00614036	21½	.0377193
	Fillet	¼	.000438597	2¾	.00482457	20¾	.0364036
	Lower Scotia	1½	.00263158				
	Fillet	¼	.000438597	5	.00877193	23	.0403509
	Lower Torus	4	.00701755	7	.0122808	25	.0438597
	Plinth	6	.0105264	7	.0127808	25	.0438597
Cap	Fillet	1	.00175439	8	.0140351	33	.0578948
				7½	.0131579	32½	.0570176
	Cyma Reversa	1⅔	.00292281	6¼	.0109650	31¼	.0548246
	Corona	3	.00526316	6	.0105264	31	.0543860
				5	.00877193	30	.0526316
	Cyma Recta	1⅓	.00233860	½	.000877193	25½	.0447369
	Reed	1	.00175439	1	.00175439	26	.0456141
	Fillet	1	.00175439	½	.000877193	25½	.0447369
	Frieze	5	.00877193			25	.0438597
Dado	Reed	1	.00175439	2	.00350878	27	.0473685
	Fillet	1	.00175439	1½	.00263158	26½	.0464913
	Dado	91	.159650			25	.0438597
	Fillet	1	.00175439	1½	.00263158	26½	.0464913
Basement	Reed	1	.00175439	2½	.00438597	27½	.0482457
				2	.00350878	27	.0473685
	Cyma Recta	3	.00526316	6	.0105264	31	.0543860
	Fillet	1	.00175439	6	.0105264	31	.0543860
	Torus	3	.00526316	8	.0140351	33	.0578948
	Plinth	4	.00701755	8	.0140351	33	.0578948

For Substitution of Modern Base

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
Modern Base	Upper Torus	3½	.00614036	4¼	.00745615	22¼	.0390351
	Fillet	½	.000877193	2½	.00438597	20½	.0359650
	Scotia	3	.00526316				
	Fillet	½	.000877193	4	.00701755	22	.0385965
	Lower Torus	4½	.00789474	7	.0122808	25	.0438597
	Plinth	6	.0105264	7	.0122808	25	.0438597

*Note:—The figures or quota in brackets must not be included when adding the figures for the total height of the order, because they are contained in the quota for the member of which they constitute subordinate parts.

Table Three

99.   These tables are exclusively for the construction of the capitals of the Corinthian and Composite Orders (with and without the pedestal).

They contain the quota and factors for the height and the projection of the mouldings, leaves, etc., of the capitals.

Capital for the Order with the Pedestal		Capital for the Order without the Pedestal	
Quota	Factor	Quota	Factor
½	.000877193	½	.00111112
1	.00175439	1	.00222223
1½	.00263158	1½	.00333334
1¾	.00307018	1¾	.00388889
2	.00350878	2	.00444445
2½	.00438597	2½	.00555556
3	.00526316	3	.00666667
3½	.00614036	3½	.00777778
4	.00701755	4	.00888889
4¼	.00745615	4¼	.00944445
4½	.00789474	4½	.0100000
5	.00877193	5	.0111112
6	.0105264	6	.0133334
6½	.0114036	6½	.0144445
7	.0122808	7	.0155556
7½	.0131579	7½	.0166667
8	.0140351	8	.0177778
8¾	.0153509	8¾	.0194445
9	.0157895	9	.0200000
10	.0175439	10	.0222223
10½	.0184211	10½	.0233334
11	.0192983	11	.0244445
11¾	.0206141	11¾	.0261112
12	.0210527	12	.0266667
12½	.0219299	12½	.0277778
13	.0228071	13	.0288889
15	.0263158	15	.0333334
16	.0280702	16	.0355556
16¾	.0293860	16¾	.0372223
17	.0298246	17	.0377778
17½	.0307018	17½	.0388889
18	.0315790	18	.0400000
19	.0333334	19	.0422223
20	.0350878	20	.0444445
20½	.0359650	20½	.0455556
21	.0368422	21	.0466667
21½	.0377193	21½	.0477778
22	.0385965	22	.0488889
23¾	.0416667	23¾	.0527778
24	.0421052	24	.0533334
25	.0438597	25	.0555556
25½	.0447369	25½	.0566667
26	.0456141	26	.0577778
27½	.0482457	27½	.0611112
28	.0491229	28	.0622223
31	.0543860	31	.0688889
32	.0561404	32	.0711112
32½	.0570176	32½	.0722223
34	.0596492	34	.0755556
36	.0631579	36	.0800000
42	.0736843	42	.0933334
23½	.0412281	23½	.0522223
25¼	.0442983	25¼	.0561112
3¾	.00657895	3¾	.00833334
8½	.0149123	8½	.0188889
10¼	.0179826	10¼	.0227778
18¾	.0328948	18¾	.0416667
26½	.0464913	26½	.0588889

Note:—These tables serve to facilitate the construction of the fine details of the Corinthian and Composite capitals, the figures for which, could not be given under "Table Two."

For illustrations corresponding to the tables on this page, see Plate XX for the Corinthian and Plate XXVI for the Composite.

The quota on the design are an aid toward finding the corresponding factor for construction of the capital.

Table Four

THE CORINTHIAN ORDER WITH THE PEDESTAL

100.   Method of obtaining the height of the entire order and of all its parts, when we have only one or more parts of the order to work from, as for example the width of the architrave or the base of the column.

If the measure (in meters or feet) of any member is known, we divide this measure by the standard quota for such a member and obtain the **factor** corresponding to it. If we then multiply this factor by the total quota for the order to which the member belongs, we obtain the total height of the order in metric or English units depending upon which system of measurement we are using.

After having found the height of the order by means of the table below, we turn back to "Table One" and "Table Two" (Pages 44 and 45) for completion of the details of the whole order.

Metric System (Millimeters) { Meters 5.000 × 629.92 = Sixteenths 3149.60 × Factor .0015875 = Meters 4.99999999998000 } English System (Sixteenths of an Inch)

	Name of Member	Height of Member (Meters)	Quota	Factor	Total Quota	Height of Order		Name of Member	Height of Member (Sixteenths)	Quota	Factor	Total Quota	Height of Order
Order	Entablature	.7895÷	90=	.00877222×	570=	5.0002	**Order**	Entablature	497.31÷	90=	5.52567×	570=	3149.63
	Column	3.1579 "	360 "	.00877194 "	"	5.0000		Column	1989.22 "	360 "	5.52561 "	"	3149.60
	Pedestal	1.0526 "	120 "	.00877166 "	"	4.9998		Pedestal	663.08 "	120 "	5.52550 "	"	3149.53
		5.0000	570						3149.61 "	570			
Entablature	Cornice	.3158 "	36 "	.00877222 "	"	5.0002	**Entablature**	Cornice	198.92 "	36 "	5.52556 "	"	3149.53
	Frieze	.2368 "	27 "	.00877033 "	"	4.9991		Frieze	149.19 "	27 "	5.52556 "	"	3149.53
	Architrave	.2368 "	27 "	.00877033 "	"	4.9991		Architrave	149.19 "	27 "	5.52556 "	"	3149.53
Column	Capital	.3684 "	42 "	.00877143 "	"	4.9997	**Column**	Capital	232.08 "	42 "	5.52571 "	"	3149.65
	Shaft	2.6316 "	300 "	.00877200 "	"	5.0000		Shaft	1657.68 "	300 "	5.52560 "	"	3149.59
	Base	.1579 "	18 "	.00877166 "	"	4.9998		Base	99.46 "	18 "	5.52556 "	"	3149.53
Pedestal	Cap	.1228 "	14 "	.00877143 "	"	4.9997	**Pedestal**	Cap	77.35 "	14 "	5.52500 "	"	3149.25
	Dado	.8246 "	94 "	.00877234 "	"	5.0002		Dado	519.41 "	94 "	5.52564 "	"	3149.61
	Basement	.1053 "	12 "	.00877500 "	"	5.0017		Basement	66.31 "	12 "	5.52583 "	"	3149.72
		5.0000	570						3149.59 "	570			
Diameters	Upper Diam	.2632 "	30 "	.00877333 "	"	5.0008	**Diameters**	Upper Diam	165.77 "	30 "	5.52567 "	"	3149.63
	Lower Diam	.3158 "	36 "	.00877222 "	"	5.0002		Lower Diam	198.92 "	36 "	5.52556 "	"	3149.53

The Above Tables Correspond to Plate XXI

Note:—The method of obtaining the factors above is the same in both tables, and while the unit of measure is different, the proportions are exactly alike in both systems of measurement.

Table Five

THE CORINTHIAN ORDER WITHOUT THE PEDESTAL

101.   The table below contains the quota and factors for the height and the projection of the members of the Corinthian Order.

	Name of Member	Measure in Modules	Height		Projection From Face of Column		Projection From Axis of Column	
			Quota	Factor	Quota	Factor	Quota	Factor
Order	Entablature	5.	90	.200000	38	.0844445	53	.117778
							15	.0333334
	Column	20.	360	.800000				
		25.	450					
Entablature	Cornice	2.	36	.0800000	38	.0844445	53	.117778
	Frieze	1½	27	.0600000			15	.0333334
	Architrave	1½	27	.0600000	5	.0111112	20	.0444445
Column	Capital	2⅓	42	.0933334	12½	.0277778	27½	.0611112
							15	.0333334
	Shaft	16⅔	300	.666667			18	.0400000
	Base	1.	18	.0400000	7	.0155556	25	.0555556
		25.	450					
Diameters	Upper Diam........	1.12	30	.0666667			15	.0333336
	Lower Diam........	2.	36	.0800000			18	.0400000

Note:—The columns in the accompanying table headed "Modules" and "Quota" give the figures by which the factors were derived.

General. Rule:—The proportion for any part of the order is obtained by multiplying the height of the order by the factor for that particular part.

The height of the Corinthian Order without the pedestal is 25 modules. The modules is divided into 18 parts. The quota for the total height of the order is therefore 450 parts.

Table Six

THE CORINTHIAN ORDER WITHOUT THE PEDESTAL

102. The tables below contain the quota and factors for the height and the projection of the mouldings of the Corinthian Order.

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Quota	Factor	Quota	Factor	Quota	Factor
Cornice	Fillet	1	.00222223	38	.0844445	53	.117778
	Cyma Recta	5	.0111112				
	Fillet	½	.00111112	33	.0733334	48	.106667
				32¾	.0727778	47¾	.106112
	Cyma Reversa	1½	.00333334	31½	.0700000	46½	.103334
	Corona	5	.0111112	31¼	.0694445	46¼	.102778
				31	.0688889	46	.102223
	Cyma Reversa	1½	.00333334	30	.0666667	45	.100000
	Modillions	6	.0133334	29¾	.0661112	44¾	.0991445
	Fillet	½	.00111112	14	.0311112	29	.0644445
				13½	.0300000	28½	.0633334
	Ovolo	4	.00888889	9½	.0211112	24½	.0544445
	Reed	1	.00222223	10	.0222223	25	.0555556
	Fillet	½	.00111112	9½	.0211112	24½	.0544445
	Dentils	6	.0133334	9	.0200000	24	.0533334
	Fillet	½	.00111112	5	.0111112	20	.0444445
				4½	.0100000	19½	.0433334
	Cyma Reversa	3	.00666667	1½	.00333334	16½	.0366667
Frieze	Reed	1	.00222223	1½	.00333334	16½	.0366667
	Fillet	½	.00111112	1	.00222223	16	.0355556
	Frieze	25½	.0566667			15	.0333334
Architrave	Fillet	1	.00222223	5	.0111112	20	.0444445
				4¾	.0105556	19¾	.0438889
	Cyma Reversa	4	.00888889	2	.00444445	17	.0377778
	Reed	1	.00222223	2	.00444445	17	.0377778
	Fascia³	7	.0155556	1½	.00333334	16½	.0366667
				1¼	.00277778	16¼	.0361112
	Cyma Reversa	2	.00444445	¾	.00166667	15¾	.0350000
	Fascia²	6	.0133334	½	.00111112	15½	.0344445
	Reed	1	.00222223	½	.00111112	15½	.0344445
	Fascia¹	5	.0111112			15	.0333334
Capital	Ovolo	2	.00444445	12½	.0277778	27½	.0611112
	Fillet	1	.00222223	10¼	.0227778	25¼	.0561112
	Abacus	3	.00666667	8½	.0188889	23½	.0522223
				4	.00888889	19	.0422223
	Lip	2	.00444445	6	.0133334	21	.0466667
	Cavetto	6	.0133334			21	.0466667
	Channel of Caulicoli	4	.00888889			15	.0333334
	Drop of Upper Leaves	3	.00666667	11½	.0255556	26½	.0588889
	Upper Leaves	9	.0200000				
	Drop of Lower Leaves	3	.00666667	7	.0155556	22	.0488889
	Lower Leaves	9	.0200000				

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Quota	Factor	Quota	Factor	Quota	Factor
Shaft	Astragal	2 }*	.00444445}*	3	.00666667	18	.0400000
	Fillet	1 }	.00222223}	1¾	.00388889	16¾	.0372223
	Shaft	300	.666667			15	.0333334
	Fillet	1½}	.00333334}	2	.00444445	20	.0444445
	Upper Diam	30 }*	.0666667 }*			15	.0333334
	Lower Diam	36 }	.0800000 }			18	.0400000
Base	Upper Torus	3	.00666667	4	.00888889	22	.0488889
	Fillet	¼	.000555556	2½	.00555556	20½	.0455556
	Upper Scotia	1	.00222223				
	Fillet	¼	.000555556	2¾	.00611112	20¾	.0461112
	2 Reeds	1¼	.00277778	3½	.00777778	21½	.0477778
	Fillet	¼	.000555556	2¾	.00611112	20¾	.0461112
	Lower Scotia	1¼	.00277778				
	Fillet	¾	.00166667	5	.0111112	23	.0511112
	Lower Torus	4	.00888889	7	.0155556	25	.0555556
	Plinth	6	.0133334	7	.0155556	25	.0555556

*Note:—The figures or quota in brackets must not be included when adding the figures for the total height of the order, because they are contained in the quota for the member of which they constitute subordinate parts.

For Substitution of Modern Base

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
Modern Base	Upper Torus	3½	.00777778	4¼	.00944445	22¼	.0494445
	Fillet	½	.00111112	2½	.00555556	20½	.0455556
	Scotia	3	.00666667				
	Fillet	½	.00111112	4	.00888889	22	.0488889
	Lower Torus	4½	.0100000	7	.0155556	25	.0555556
	Plinth	6	.0133334	7	.0155556	25	.0555556

Table Seven

THE CORINTHIAN ORDER WITHOUT THE PEDESTAL

103. These tables may be used for restoration of the Corinthian Order without the Pedestal, in the same manner as is explained under "Table Four" (Art. 100, Page 47.)

Metric System (Millimeters) { Meters 3.9474 × 629.92 = Sixteenths 2486.55 × Factor .0015875 = Meters 3.94740601979625 } English System (Sixteenths of an Inch)

	Name of Member	Height of Member — Meters	Height of Member — Quota	Factor	Total Quota	Height of Order
Order	Entablature	.7895÷	90=	.00877222×	450=	3.9475
	Column	3.1579 "	360 "	.00877194 "	"	3.9474
		3.9474	450			
Entablature	Cornice	.3158 "	36 "	.00877222 "	"	3.9475
	Frieze	.2368 "	27 "	.00877033 "	"	3.9466
	Architrave	.2368 "	27 "	.00877033 "	"	3.9466
Column	Capital	.3684 "	42 "	.00877143 "	"	3.9471
	Shaft	2.6317 "	300 "	.00877200 "	"	3.9474
	Base	.1579 "	18 "	.00877166 "	"	3.9472
		3.9474	450			
Diameters	Upper Diam	.2632 "	30 "	.00877333 "	"	3.9480
	Lower Diam	.3158 "	36 "	.00877222 "	"	3.9475

	Name of Member	Height of Member — Sixteenths	Height of Member — Quota	Factor	Total Quota	Height of Order
Order	Entablature	497.31÷	90=	5.52567×	450=	2486.55
	Column	1989.22 "	360 "	5.52561 "		2486.52
		2486.53	430			
Entablature	Cornice	198.92 "	36 "	5.52556 "	"	2486.50
	Frieze	149.19 "	27 "	5.52571 "	"	2486.57
	Architrave	149.19 "	27 "	5.52571 "	"	2486.57
Column	Capital	232.08 "	42 "	5.52560 "	"	2486.52
	Shaft	1657.68 "	300 "	5.52556 "	"	2486.50
	Base	99.46 "	18 "	5.52500 "	"	2486.25
		2486.52	450			
Diameters	Upper Diam	165.77 "	30 "	5.52567 "	"	2486.55
	Lower Diam	198.92 "	36 "	5.52556 "	"	2486.50

The above tables correspond to Plate XXI.

Table Eight

INTERCOLUMNIATION WITH THE CORINTHIAN ORDER

104. These tables contain the quota and factors for the distance between, and for the height of columns,—also the width and height of arches.

Kinds of Intercolumniation	Distance From Axis to Axis			Distance From Column to Column			Space Between Pars			Height of Opening			Height of Impost		
	Modules	Quota	Factor	Modules	Quota	Factor	Modules	Quota	Factor	Modules	Quota	Factor	Modules	Quota	Factor
Simple Intercolumniation	6.12	120	.266667	4.12	84	.186667	4.12	84	.186667	20	360	.800000			
Arcade Without Pedestal.......	12. *12.9	216 225	.480000 .500000	10. 10.9	180 189	.400000 .420000	9.	162	.360000	18.	324	.720000	13.9	243	.540000
Arcade With Pedestal...........	16.	288	.505264	14.	252	.442106	12.	216	.378948	25.	450	.789474	19.	342	.600000

*Factors for increased width of "Alette".

Impost and Archivolt for Arcade **without** Pedestal.

Impost F=.040000=Quota 18 / Name of Moulding	Height		Projection	
	Quota	Factor	Quota	Factor
Fillet	1	.00222223	6	.0133334
			5½	.0122223
Cyma Reversa..	2	.00444445	3½	.00777778
Fascia	4	.00888889	3¼	.00722223
			2¾	.00611112
Ovolo	2	.00444445	¾	.00166667
Reed	1	.00222223	1¼	.00277778
Fillet	½	.00111112	¾	.00166667
Frieze	6	.0133334		
Reed	1	.00222223	1¼	.00277778
Fillet	½	.00111112	¾	.00166667

Archivolt F=.020000=Quota 9 / Name of Moulding	Height		Projection	
Fillet	¾	.00166667	3	.00666667
			2¾	.00611112
Cyma Reversa..	1¾	.00388889	1	.00222223
Fascia³	3¾	.00833334	¾	.00166667
Fascia¹	2¾	.00611112		

Note:—The visible face of the pier, between the column and the opening (called alette), appears too narrow with Vignola's proportions. A better effect is obtained by using the factor for the larger quota in the accompanying tables.

Impost and Archivolt for Arcade **with** Pedestal.

Impost F=.0315790=Quota 18 / Name of Moulding	Height		Projection	
	Quota	Factor	Quota	Factor
Fillet	1	.00175439	6	.0105264
			5½	.00964913
Cyma Reversa..	2	.00350878	3½	.00614036
Fascia	4	.00701755	3¼	.00570176
			2¾	.00482457
Ovolo	2	.00350878	¾	.00131579
Reed	1	.00175439	1¼	.00219299
Fillet	½	.000877193	¾	.00131579
Frieze	6	.0105264		
Reed	1	.00175439	1¼	.00219299
Fillet	½	.000877193	¾	.00131579

Archivolt F=.0315790=Quota 18 / Name of Moulding	Height		Projection	
Fillet	1	.00175439	5	.00887193
			4¾	.00833334
Cyma Reversa..	2	.00350878	3¼	.00570176
Fascia	5	.00877193	3	.00526316
			2½	.00438597
Ovolo	1½	.00263158	1	.00175439
Fillet	½	.000877193	1	.00175439
Fascia³	4	.00701755	½	.000877193
Reed	1	.00175439	½	.000877193
Fascia¹	3	.00526316		

PART EIGHT

Table One

THE COMPOSITE ORDER WITH THE PEDESTAL

105.   This table contains the quota and factors of architecture for the height and the projection of the members of the Composite Order.

	Name of Member	Modules in Measure	Height		Projection From Face of Column		Projection From Axis of Column	
			Quota	Factor	Quota	Factor	Quota	Factor
Order	Entablature	5.	90	.157895	36	.0631579	51 15	.0894737 .0263158
	Column	20.	360	.631579			18	.0315790
	Pedestal	6.12	120	.210527	8	.0140351	33	.0578948
		31.12	570					
Entablature	Cornice	2.	36	.0631579	36	.0631579	51	.0894737
	Frieze	1½	27	.0473685			15	.0263158
	Architrave	1½	27	.0473685	7	.0122808	22	.0385965
Column	Capital	2⅓	42	.0736843	13	.0228071	28 15	.0491229 .0263158
	Shaft	16⅔	300	.256316			18	.0315790
	Base	1.	18	.0315790	7	.0122808	25	.0438597
Pedestal	Cap	.14	14	.0245615	8	.0140351	33	.0578948
	Dado	5.4	94	.164913			25	.0438597
	Basement	.12	12	.0210527	8	.0140351	33	.0578948
		31.12	570					
Diameters	Upper Diam.....	1.12	30	.0526316			15	.0263158
	Lower Diam.....	2	36	.0631579			18	.0315790

Note:—The columns in the accompanying table headed "Modules" and "Quota" give the figures by which the factors were derived.

General Rule:—The proportion for any part of the order is obtained by multiplying the height of the order by the factor for that particular part.

BRIEF HISTORY OF THE COMPOSITE ORDER

This order is a combination of all the other four orders. The Romans invented it expressly for triumphal purposes and called it the **Triumphal Order.**

Proportions:—The proportions of the Composite Order are identical to those of the Corinthian, which is 31⅔ modules high; the module is also divided into 18 parts. The quota for the total height is therefore 570 parts. The entablature is ¼, and the pedestal is ⅓ the height of the column, which corresponds to the Corinthian proportions.

By placing the order as described above, upon a sub-base (zoccolo) six parts high, we have the total order as tall as Vignola made it, namely 32 modules.

Table Two

THE COMPOSITE ORDER WITH THE PEDESTAL

106. These tables contain the quota and factors for the height and the projection of the mouldings of the Composite Order.

Section	Name of Moulding	Height Quota	Height Factor	Proj. From Face of Column Quota	Proj. From Face of Column Factor	Proj. From Axis of Column Quota	Proj. From Axis of Column Factor
Cornice	Fillet	1½	.00263158	36	.0631579	51	.0894737
	Cyma Recta	5	.00877193				
	Fillet	1	.00175439	30	.0526316	45	.0789474
				29½	.0517744	44½	.0780702
	Cyma Reversa	2	.00350878	27½	.0482457	42½	.0745615
	Reed	1	.00175439	27½	.0482457	42½	.0745615
	Corona	5½	.00964913	27	.0473685	42	.0736843
				25	.0438597	40	.0701755
	Cyma Recta	2	.00350878	16½	.0289474	31½	.0552632
	Fillet	1	.00175439	16½	.0289474	31½	.0552632
				16	.0280702	31	.0543860
	Cyma Reversa	4	.00701755	12½	.0219299	27½	.0482457
	Dentils	7	.0122808	12	.0210527	27	.0473685
	Fillet	1	.00175439	7	.0122808	22	.0385965
				6½	.0114036	21½	.0377193
	Ovolo	5	.00877193	1½	.00263158	16½	.0289474
Frieze	Reed	1½	.00263158	1¾	.00307018	16¾	.0293860
	Fillet	½	.000877193	1	.00175439	16	.0280702
	Frieze	25	.0438597			15	.0263158
Architrave	Fillet	1	.00175439	7	.0122808	22	.0385965
				7	.0122808	22	.0385965
	Cavetto	2	.00350878	5	.00877193	20	.0350878
				4¾	.00833334	19¾	.0346492
	Ovolo	3	.00526316	1¾	.00307018	16¾	.0293860
	Reed	1	.00175439	2¼	.00394737	17¼	.0302632
	Fascia²	10	.0175439	1¾	.00307018	16¾	.0293860
				1½	.00263158	16½	.0289474
	Cyma Reversa	2	.00350878	½	.000877193	15½	.0271930
	Fascia¹	8	.0140351			15	.0263158
Capital	Ovolo	1½	.00263158	13	.0228071	28	.0491229
	Reed	½	.000877193	11	.0192983	26	.0456141
	Abacus	4	.00701755	9	.0157895	24	.0421053
	Channel	2	.00350878			15	.0263158
				5	.00877193	20	.0350878
	Ovolo	4	.00701755	1	.00175439	16	.0280702
	Reed	1½	.00263158	1¾	.00307018	16¾	.0293860
	Fillet	½	.000877193	1	.00175439	16	.0280702
	Channel	4	.00701755			15	.0263158
	Drop of Upper Leaves	3	.00526316	11½	.0201755	26½	.0464913
	Upper Leaves	9	.0157895				
	Drop of Lower Leaves	3	.00526316	7	.0122808	22	.0385965
	Lower Leaves	9	.0157895				

Section	Name of Moulding	Height Quota	Height Factor	Proj. From Face of Column Quota	Proj. From Face of Column Factor	Proj. From Axis of Column Quota	Proj. From Axis of Column Factor
Shaft	Astragal	2 }*	.00350878	3	.00526316	18	.0315790
	Fillet	1 }	.00175439	1¾	.00307018	16¾	.0293860
	Shaft	300	.526316			15	.0263158
	Fillet	1½	.00263158	2	.00350878	20	.0350878
	Upper Diam	30 }*	.0526316			15	.0263158
	Lower Diam	36 }	.0631579			18	.0315790
Base	Upper Torus	3	.00526316	4	.00701755	22	.0385965
	Fillet	¼	.000438597	2½	.00438597	20½	.0359650
	Upper Scotia	1⅓	.00233860				
	Fillet	¼	.000438597	3½	.00614036	21½	.0377193
	Reed	1	.00175439	4	.00701755	22	.0385965
	Fillet	¼	.000438597	3½	.00614036	21½	.0377193
	Lower Scotia	1⅔	.00292281				
	Fillet	¼	.000438597	5	.00877193	23	.0403509
	Lower Torus	4	.00701755	7	.0122808	25	.0438597
	Plinth	6	.0105264	7	.0122808	25	.0438597
Cap	Fillet	⅔	.00116843	8	.0140351	33	.0578948
				7¾	.0135965	32¾	.0574562
	Cyma Reversa	1⅓	.00233860	6¼	.0109650	31¼	.0548246
	Corona	3	.00526316	6	.0105264	31	.0543860
				4½	.00789474	29½	.0517744
	Cyma Recta	1½	.00263158	2¼	.00394737	27¼	.0478071
	Fillet	½	.000877193	2¼	.00394737	27¼	.0478071
				2¼	.00394737	27¼	.0478071
	Cavetto	2	.00350878	¼	.000438597	25¼	.0442983
	Frieze	5	.00877193			25	.0438597
Dado	Reed	1	.00175439	2	.00380878	27	.0473685
	Fillet	1	.00175439	1½	.00263158	26½	.0464913
	Dado	91	.159650			25	.0438597
	Fillet	1	.00175439	1½	.00263158	26½	.0464913
Basement	Reed	1	.00175439	2¼	.00394737	27¼	.0478071
				2½	.00438597	27½	.0482457
	Cyma Recta	3	.00526316	6	.0105264	31	.0543860
	Fillet	1	.00175439	6½	.0114036	31½	.0552632
	Torus	3	.00526316	8	.0140351	33	.0578948
	Plinth	4	.00701755	8	.0140351	33	.0578948

*Note:—The figures or quota in brackets must not be included when adding the figures for the total height of the order, because they are contained in the quota for the member of which they constitute subordinate parts.

If the modern base, which is the same as for the Corinthian Order, is preferred, the figures for it may be found in "Table Six", Art 102, Page 49; and if Modillions are desired, the entire Corinthian cornice should be substituted as given under the table mentioned above, page 49, since the total quota is the same for both.

Table Three

THE COMPOSITE ORDER WITH THE PEDESTAL

107. Method of obtaining the height of the entire order and of all its parts, when we have only one or more parts of the order to work from, as for example the width of the architrave or the height of the base.

If the measure (in meters or feet) of any member is known, we divide this measure by the standard quota for such a member and obtain the factor corresponding to it. If we then multiply this factor by the total quota for the order to which the member belongs, we obtain the total height of the order in metric or English units, depending upon which system of measurement we are using.

After having found the height of the order by means of the table below, we turn back to "Table One" and "Table Two" (pages 52 and 53) for completion of the details of the whole order.

$$\text{Metric System (Millimeters)} \quad \left\{ \begin{array}{l} \text{Meters} \\ 3.000 \end{array} \times 629.92 = \begin{array}{l} \text{Sixteenths} \\ 1889.76 \end{array} \times \begin{array}{l} \text{Factor} \\ .0015875 \end{array} = \begin{array}{l} \text{Meters} \\ 2.99999999998800 \end{array} \right\} \quad \text{English System (Sixteenths of an Inch)}$$

Metric System

	Name of Member	Height of Member — Meters	Height of Member — Quota	Factor	Total Quota	Height of Order
Order	Entablature	.4737÷	90=	.00526333×	570=	3.0001
	Column	1.8947	360	.00526306	"	2.9999
	Pedestal	.6316	120	.00526333	"	3.0001
		3.0000	570			
Entablature	Cornice	.1895	36	.00526388	"	3.0004
	Frieze	.1421	27	.00526296	"	2.9999
	Architrave	.1421	27	.00526296	"	2.9999
Column	Capital	.2210	42	.00526191	"	2.9993
	Shaft	1.5789	300	.00526300	"	2.9999
	Base	.0947	18	.00526112	"	2.9988
Pedestal	Cap	.0737	14	.00526428	"	3.0006
	Dado	.4947	94	.00526277	"	2.9998
	Basement	.0632	12	.00526666	"	3.0020
Diameters	Upper Diam	.1579	30	.00526333	"	3.0001
	Lower Diam	.1895	36	.00526388	"	3.0004

English System

	Name of Member	Height of Member — Sixteenths	Height of Member — Quota	Factor	Total Quota	Height of Order
Order	Entablature	298.38÷	90=	3.31534×	570=	1889.74
	Column	1193.53	360	3.31536	"	1889.76
	Pedestal	397.84	120	3.31534	"	1889.74
		1889.75	570			
Entablature	Cornice	119.35	36	3.31528	"	1889.71
	Frieze	89.52	27	3.31556	"	1889.87
	Architrave	89.52	27	3.31556	"	1889.87
Column	Capital	139.25	42	3.31547	"	1889.82
	Shaft	994.63	300	3.31544	"	1889.80
	Base	59.68	18	3.31556	"	1889.87
Pedestal	Cap	46.42	14	3.31571	"	1889.95
	Dado	311.65	94	3.31543	"	1889.80
	Basement	39.78	12	3.31500	"	1889.55
Diameters	Upper Diam	99.46	30	3.31534	"	1889.74
	Lower Diam	119.35	36	3.31528	"	1889.71

These Tables Correspond to Plate XXX

Note:—The method of obtaining the factors above, is the same in both tables, and while the unit of measure is different, the proportions are exactly alike in both systems of measurement.

Table Four

THE COMPOSITE ORDER WITHOUT THE PEDESTAL

108.   The table below contains the quota and factors for the height and the projection of the members of the Composite Order.

	Name of Member	Measure in Modules	Height		Projection From Face of Column		Projection From Axis of Column	
			Quota	Factor	Quota	Factor	Quota	Factor
Order	Entablature	5.	90	.200000	36	.0800000	51	.113334
							15	.0333334
	Column	20.	360	.800000			18	.0400000
		25.	450					
Entablature	Cornice	2.	36	.0800000	36	.0800000	51	.113334
	Frieze	1½	27	.0600000			15	.0333334
	Architrave	1½	27	.0600000	7	.0155556	22	.0488889
Column	Capital	2⅓	42	.0933334	13	.0288889	28	.0622223
							15	.0333334
	Shaft	16⅔	300	.666667			18	.0400000
	Base	1	18	.0400000	7	.0155556	25	.0555556
		25.	450					
Diameters	Upper Diam......	1.12	30	.0666667			15	.0333334
	Lower Diam.....	2	36	.0800000			18	.0400000

Note:—The columns in the accompanying table headed "Modules" and "Quota" give the figures by which the factors were derived.

General Rule:—The proportion for any part of the order is obtained by multiplying the height of the order by the factor for that particular part

The height of the Composite Order without the Pedestal is 25 modules. The module is divided into 18 parts. The quota for the total height of the order is therefore 450 parts.

Note:—It is evident that the total quota for the orders without the pedestal, is less than for the orders with the pedestal. Consequently the factors we use in cases without the pedestal are different from those with the pedestal, but it should be clearly understood that we get absolutely the same results in both cases, even though the factors are not alike.

Table Five

THE COMPOSITE ORDER WITHOUT THE PEDESTAL

109. The tables below contain the quota and factors for the height and the projection of the mouldings of the Composite Order.

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Quota	Factor	Quota	Factor	Quota	Factor
Cornice	Fillet	1½	.00333334	36	.0800000	51	.113334
	Cyma Recta	5	.0111112				
	Fillet	1	.00222223	30	.0666667	45	.100000
				29½	.0655556	44½	.0988889
	Cyma Reversa	2	.00444445	27½	.0611112	42½	.0944445
	Reed	1	.00222223	27½	.0611112	42½	.0944445
	Corona	5½	.0122223	27	.0600000	42	.0933334
				25	.0555556	40	.0888889
	Cyma Recta	2	.00444445	16½	.0366667	31½	.0700000
	Fillet	1	.00222223	16½	.0366667	31½	.0700000
				16	.0355556	31	.0688889
	Cyma Reversa	4	.00888889	12½	.0277778	27½	.0611112
	Dentils	7	.0155556	12	.0266667	27	.0600000
	Fillet	1	.00222223	7	.0155556	22	.0488889
				6½	.0144445	21½	.0477778
	Ovolo	5	.0111112	1½	.00333334	16½	.0366667
Frieze	Reed	1½	.00333334	1¾	.00388889	16¾	.0372223
	Fillet	½	.00111112	1	.00222223	16	.0355556
	Frieze	25	.0555556			15	.0333334
Architrave	Fillet	1	.00222223	7	.0155556	22	.0488889
				7	.0155556	22	.0488889
	Cavetto	2	.00444445	5	.0111112	20	.0444445
				4¾	.0105556	19¾	.0438889
	Ovolo	3	.00666667	1¾	.00388889	16¾	.0372223
	Reed	1	.00222223	2¼	.00500000	17¼	.0383334
	Fascia²	10	.0222223	1¾	.00388889	16¾	.0372223
				1½	.00333334	16½	.0366667
	Cyma Reversa	2	.00444445	½	.00111112	15½	.0344445
	Fascia¹	8	.0177778			15	.0333334
Capital	Ovolo	1½	.00333334	13	.0288889	28	.0622223
	Fillet	½	.00111112	11	.0244445	26	.0577778
	Abacus	4	.00888889	9	.0200000	24	.0533334
	Channel	2	.00444445			15	.0333334
				5	.0111112	20	.0444445
	Ovolo	4	.00888889	1	.00222223	16	.0355556
	Reed	1½	.00333334	1¾	.00388889	16¾	.0372223
	Fillet	½	.00111112	1	.00222223	16	.0355556
	Channel	4	.00888889			15	.0333334
	Drop of Upper Leaves	3	.00666667	11½	.0255556	26½	.0588889
	Upper Leaves	9	.0200000				
	Drop of Lower Leaves	3	.00666667	7	.0155556	22	.0488889
	Lower Leaves	9	.0200000				

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Quota	Factor	Quota	Factor	Quota	Factor
Shaft	Astragal	2 }	.00444445	3	.00666667	18	.0400000
	Fillet	1 }*	.00222223	1¾	.00388889	16¾	.0372223
	Shaft	300	.666667			15	.0333334
	Fillet	1½ }	.00333334	2	.00444445	20	.0444445
	Upper Diam.	30 }*	.0666667			15	.0333334
	Lower Diam.	36 }	.0800000			18	.0400000
Base	Upper Torus	3	.00666667	4	.00888889	22	.0488889
	Fillet	¼	.000555556	2½	.00555556	20½	.0455556
	Upper Scotia	1⅓	.00295556				
	Fillet	¼	.000555556	3½	.00777778	21½	.0477778
	Reed	1	.00222223	4	.00888889	22	.0488889
	Fillet	¼	.000555556	3½	.00377778	21½	.0477778
	Lower Scotia	1⅔	.00368889				
	Fillet	¼	.000555556	5	.0111112	23	.0511112
	Lower Torus	4	.00888889	7	.0155556	25	.0555556
	Plinth	6	.0133334	7	.0155556	25	.0555556

*Note :—The figures or quota in brackets must not be included, when adding the figures for the total height of the order, because they are contained in the quota for the member of which they constitute subordinate parts.

For Substitution of Modern Base

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
Modern Base	Upper Torus	3½	.00777778	4¼	.00944445	22¼	.0494445
	Fillet	½	.00111112	2½	.00555556	20½	.0455556
	Scotia	3	.00666667				
	Fillet	½	.00111112	4	.00888889	22	.0488889
	Lower Torus	4½	.0100000	7	.0155556	25	.0555556
	Plinth	6	.0133334	7	.0155556	25	.0555556

Table Six

THE COMPOSITE ORDER WITHOUT THE PEDESTAL

110. These tables may be used for restoration of the Composite Order without the Pedestal, in the same manner as is explained under "Table Three" (Art. 107, Page 54.)

$$\text{Metric System (Millimeters)} \begin{cases} \text{Meters} \\ 2.3684 \end{cases} \times\ 629.92\ =\ \underset{\text{Sixteenths}}{1491.90}\ \times\ \underset{\text{Factor}}{.0015875}\ =\ \underset{\text{Meters}}{2.36839598678250} \Big\} \ \ \text{English System (Sixteenths of an Inch)}$$

	Name of Member	Height of Member		Factor	Total Quota	Height of Order		Name of Member	Height of Member		Factor	Total Quota	Height of Order
		Meters	Quota						Sixteenths	Quota			
Order	Entablature	.4737÷	90=	.00526333×	450=	2.3685	**Order**	Entablature	298.38÷	90=	3.31534×	450=	1491.90
	Column	1.8947	360	.00526306	"	2.3684		Column	1193.53	360	3.31536	"	1491.81
		2.3684	450						1491.91	450			
Entablature	Cornice	.1895	36	.00526388	"	2.3687	**Entablature**	Cornice	119.35	36	3.31528	"	1491.88
	Frieze	.1421	27	.00526296	"	2.3683		Frieze	89.52	27	3.31556	"	1491.81
	Architrave	.1421	27	.00526296	"	2.3683		Architrave	89.52	27	3.31556	"	1491.81
Column	Capital	.2211	42	.00526191	"	2.3679	**Column**	Capital	139.25	42	3.31547	"	1491.96
	Shaft	1.5789	300	.00526300	"	2.3684		Shaft	994.63	300	3.31544	"	1491.95
	Base	.0947	18	.00526112	"	2.3685		Base	59.68	18	3.31556	"	1491.81
		2.3684	450						1491.95	450			
Diameters	Upper Diam	.1579	30	.00526333	"	2.3685	**Diameters**	Upper Diam	99.46	30	3.31534	"	1491.90
	Lower Diam	.1895	36	.00526388	"	2.3687		Lower Diam	119.35	36	3.31528	"	1491.88

The above tables correspond to Plate XXX.

Table Seven

INTERCOLUMNIATION WITH THE COMPOSITE ORDER

111.   These tables contain the quota and factors for the distance between and for the height of columns,—also the width and height of arches.

Kinds of Intercolumniation	Distance From Axis to Axis			Distance From Column to Column			Space Between Piers			Height of Opening			Height of Impost		
	Modules	Quota	Factor	Modules	Quota	Factor	Modules	Quota	Factor	Modules	Quota	Factor	Modules	Quota	Factor
Simple Intercolumniation	6.12	120	.266667	4.12	84	.186667	4.12	84	.186667	20	360	.800000			
Arcade Without Pedestal.......	12. *12.9	216 225	.480000 .500000	10. 10.9	180 189	.400000 .420000	9.	162	.360000	18.	324	.720000	13.9	243	.540000
Arcade With Pedestal...........	16.	288	.505264	14.	252	.442106	12.	216	.378948	25.	450	.789474	19.	342	.600000

*Factors for increased width of "alette".

Impost and Archivolt for Arcade **without** Pedestal

Impost F=.0400000=Quota 18

Name of Moulding	Height		Projection	
	Quota	Factor	Quota	Factor
Fillet	1	.00222223	6 6	.0133334 .0133334
Cavetto	2	.00444445	4	.00888889
Fascia²	4	.00888889	3¾ 3½	.00833334 .00777778
Ovolo	3	.00666667	½	.00111112
Reed	1	.00222223	1	.00222223
Fillet	½	.00111112	½	.00111112
Fascia¹	6½	.0144445	¼	.000555556

Archivolt=.023334=Quota 10½

Name of Moulding	Height		Projection	
Fillet	1	.00222223	3 2½	.00666667 .00555556
Ovolo	2	.00444445	½	.00111112
Reed	1	.00222223	½	.00111112
Fascia	6½	.0144445		

*Note:—The visible face of the pier, between the column and the opening (called alette) appears too narrow with Vignola's proportions. A better effect is obtained by using the factor for the larger quota in the accompanying tables.

Impost and Archivolt for Arcade **with** Pedestal

Impost F=.0315790=Quota 18

Name of Moulding	Height		Projection	
	Quota	Factor	Quota	Factor
Fillet	1	.00175439	6 6	.0105264 .0105264
Cavetto	2	.00350878	4	.00701755
Fascia	3½	.00614036	3¾	.00657895
Fillet	½	.000877193	3½ 3½	.00614036 .00614036
Cyma Recta......	3	.00526316	½	.000877193
Reed	1	.00175439	1	.00175439
Fillet	½	.000877193	½	.000877193
Frieze	5	.00877193		
Reed	1	.00175439	1½	.00263158
Fillet	½	.000877193	1	.00175439

Archivolt=.0315790=Quota 18

Name of Moulding	Height		Projection	
Fillet	1	.00175439	4 3¾	.00701755 .00657895
Cyma Reversa....	3	.00526316	1½	.00263158
Fillet	1	.00175439	1¼	.00219299
Fascia²	6½	.0114036	1	.00175439
Reed	1½	.00263158	¾	.00131579
Fascia¹	5	.00877193		

PART NINE

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112.   The Formula and Solution for obtaining the Factors of Architecture for the Members and Mouldings which constitute the Five Orders of Architecture.

COMPOSITION OF THE ORDERS

Every order is composed of several members, and each member has its own mouldings, to which are assigned definite quotas for height and for projection.   The combined height of all the mouldings makes the total height of the order, which we term the **total quota.**

The Factor of Architecture is the abstract quotient of two quotas belonging to the same order, by the use of which the proportions in modules and parts can easily be changed into standard units of measure.

The quota for any moulding or part of the order divided by the **total quota** gives the corresponding factor to be used with that particular moulding or part.

On the following pages 62 to 69, all the necessary factors for all the orders, with scientific proof for their accuracy, are given in tabular form.

113. This table shows how the various factors for the Tuscan Order **with the Pedestal** were obtained.

The height of this order is 22 modules and 2 parts. The module is divided into 12 parts.

Solution: 22 m. 2 p. × 12 = 266 p. total quota.

Quota	Total Quota	Factor	Total Quota	Proof for Accuracy
¼ ÷	266 =	.000939850 ×	266 =	.250000100
½ "	"	.00187970	"	.50000020
⅓ "	"	.00125188	"	.33300008
⅔ "	"	.00250376	"	.66600016
¾ "	"	.00281955	"	.75000030
1 "	"	.00375940	"	1.00000040
1¼ "	"	.00469925	"	1.25000050
1½ "	"	.00563910	"	1.50000060
1⅓ "	"	.00500000	"	1.33000000
1⅔ "	"	.00624061	"	1.66000226
1¾ "	"	.00657895	"	1.75000070
2 "	"	.00751880	"	2.00000080
2¼ "	"	.00845865	"	2.25000090
2½ "	"	.00939850	"	2.50000100
2¾ "	"	.0103384	"	2.7500144
3 "	"	.0112782	"	3.0000012
3½ "	"	.0131579	"	3.5000014
4 "	"	.0150376	"	4.0000016
4½ "	"	.0169173	"	4.5000018
5 "	"	.0187970	"	5.0000020
5½ "	"	.0206767	"	5.5000022
6 "	"	.0225564	"	6.0000024
6½ "	"	.0244361	"	6.5000026
7 "	"	.0263158	"	7.0000028
7¼ "	"	.0272557	"	7.2500162
7½ "	"	.0281955	"	7.5000030
8 "	"	.0300752	"	8.0000032
8½ "	"	.0319549	"	8.5000034
9 "	"	.0338346	"	9.0000036
9½ "	"	.0357143	"	9.5000038
10 "	"	.0375940	"	10.0000040
10½ "	"	.0394737	"	10.5000042
11 "	"	.0413534	"	11.0000044
11¼ "	"	.0422933	"	11.2500178
11½ "	"	.0432331	"	11.5000046
12 "	"	.0451128	"	12.0000048
12½ "	"	.0469925	"	12.5000050
13 "	"	.0488722	"	13.0000052
13½ "	"	.0507519	"	13.5000054
13¾ "	"	.0516918	"	13.7500188
14 "	"	.0526316	"	14.0000056
14½ "	"	.0545113	"	14.5000058
15 "	"	.0563910	"	15.0000060
15½ ÷	266 =	.0582707 ×	266 =	15.5000062
16 "	"	.0601504	"	16.0000064
16½ "	"	.0620301	"	16.5000066
17 "	"	.0639098	"	17.0000068
17½ "	"	.0657895	"	17.5000070
18 "	"	.0676692	"	18.0000072
18½ "	"	.0695489	"	18.5000074
19 "	"	.0714286	"	19.0000076
19¼ "	"	.0723685	"	19.2500110
19½ "	"	.0733083	"	19.5000078
19¾ "	"	.0742482	"	19.7500212
20 "	"	.0751880	"	20.0000080
20½ "	"	.0770677	"	20.5000082
21 "	"	.0789474	"	21.0000084
21½ "	"	.0808271	"	21.5000086
22 "	"	.0827068	"	22.0000088
22½ "	"	.0845865	"	22.5000090
23 "	"	.0864662	"	23.0000092
23½ "	"	.0883459	"	23.5000094
24 "	"	.0902256	"	24.0000096
24½ "	"	.0921053	"	24.5000098
25 "	"	.0939850	"	25.0000100
25½ "	"	.0958647	"	25.5000102
26 "	"	.0977444	"	26.0000104
26½ "	"	.0996241	"	26.5000106
27 "	"	.101560	"	27.000064
27½ "	"	.103384	"	27.500144
28 "	"	.105264	"	28.000224
28½ "	"	.107143	"	28.500038
29 "	"	.109023	"	29.000118
29½ "	"	.110903	"	29.500198
30 "	"	.112782	"	30.000012
30½ "	"	.114662	"	30.500092
42 "	"	.157895	"	42.000070
44 "	"	.165414	"	44.000124
56 "	"	.210527	"	56.000182
105 "	"	.394437	"	105.000042
129 "	"	.484963	"	129.000158
144 "	"	.541354	"	144.000164
153 "	"	.575188	"	153.000008
157½ "	"	.592106	"	157.500196
168 "	"	.631579	"	168.000014
210 "	"	.789474	"	210.000084

114.   This table shows how the various factors for the Tuscan Order **without the Pedestal** were obtained.

The height of this order is **17** modules and 6 parts.   The module is divided into **12** parts.

Solution: 17 m. 6 p. $\times$ 12 = 210 p. total quota.

Quota	Total Quota	Factor	Total Quota	Proof for Accuracy
¼ ÷	210=	.00119048 ×	210=	.25000080
½ "	"	.00238096 "	"	.50000160
⅓ "	"	.00158572 "	"	.33300120
⅔ "	"	.00317143 "	"	.66600030
¾ "	"	.00357143 "	"	.75000030
1 "	"	.00476191 "	"	1.00000110
1¼ "	"	.00595239 "	"	1.25000190
1½ "	"	.00714286 "	"	1.50000060
1⅓ "	"	.00633334 "	"	1.33000140
1⅔ "	"	.00790477 "	"	1.66000170
1¾ "	"	.00833334 "	"	1.75000140
2 "	"	.00952381 "	"	2.00000010
2¼ "	"	.0107143 "	"	2.2500030
2½ "	"	.0119048 "	"	2.5000080
2¾ "	"	.0130953 "	"	2.7500130
3 "	"	.0142858 "	"	3.0000180
3½ "	"	.0166667 "	"	3.5000070
4 "	"	.0190477 "	"	4.0000170
4½ "	"	.0214286 "	"	4.5000060
5 "	"	.0238096 "	"	5.0000160
5½ "	"	.0261905 "	"	5.5000050
6 "	"	.0285715 "	"	6.0000150
6½ "	"	.0309524 "	"	6.5000040
7 "	"	.0333334 "	"	7.0000140
7¼ "	"	.0345239 "	"	7.2500190
7½ "	"	.0357143 "	"	7.5000010
8 "	"	.0380953 "	"	8.0000130
8½ "	"	.0404762 "	"	8.5000020
9 "	"	.0428572 "	"	9.0000120
9½ "	"	.0452381 "	"	9.5000010
10 "	"	.0476191 "	"	10.0000110
10½ "	"	.0500000 "	"	10.5000000
11 "	"	.0523810 "	"	11.0000100
11¼ "	"	.0535715 "	"	11.2500150
11½ "	"	.0547620 "	"	11.5000200
12 "	"	.0571429 "	"	12.0000090
12½ "	"	.0595239 "	"	12.5000190
13 "	"	.0619048 "	"	13.0000080
13½ "	"	.0642858 "	"	13.5000180
13¾ "	"	.0654762 "	"	13.7500020
14 "	"	.0666667 "	"	14.0000070
14½ "	"	.0690477 "	"	14.5000170
15 "	"	.0714286 "	"	15.0000060
15½ ÷	210=	.0738096 ×	210=	15.5000160
16 "	"	.0761905 "	"	16.0000050
16½ "	"	.0785715 "	"	16.5000150
17 "	"	.0809524 "	"	17.0000040
17½ "	"	.0833334 "	"	17.5000140
18 "	"	.0857143 "	"	18.0000030
18½ "	"	.0880953 "	"	18.5000130
19 "	"	.0904762 "	"	19.0000020
19½ "	"	.0928572 "	"	19.5000120
20 "	"	.0952381 "	"	20.0000010
20½ "	"	.0976191 "	"	20.5000110
21 "	"	.100000 "	"	21.000000
21½ "	"	.102381 "	"	21.500010
22 "	"	.104762 "	"	22.000020
22½ "	"	.107143 "	"	22.500030
23 "	"	.109524 "	"	23.000040
23½ "	"	.111905 "	"	23.500050
24 "	"	.114286 "	"	24.000060
24½ "	"	.116667 "	"	24.500070
25 "	"	.119048 "	"	25.000080
25½ "	"	.121429 "	"	25.500090
26 "	"	.123810 "	"	26.000100
26½ "	"	.126191 "	"	26.500110
27 "	"	.128572 "	"	27.000120
27½ "	"	.130953 "	"	27.500130
28 "	"	.133334 "	"	28.000140
28½ "	"	.135715 "	"	28.500150
29 "	"	.138096 "	"	29.000160
29½ "	"	.140477 "	"	29.500170
30 "	"	.142858 "	"	30.000180
30½ "	"	.145239 "	"	30.500190
42 "	"	.200000 "	"	42.000000
56 "	"	.266667 "	"	56.000070
78 "	"	.371429 "	"	78.000090
80 "	"	.380953 "	"	80.000130
90 "	"	.428572 "	"	90.000120
96 "	"	.457143 "	"	96.000030
114 "	"	.542858 "	"	114.000180
117 "	"	.557143 "	"	117.000030
120 "	"	.571429 "	"	120.000090
144 "	"	.685715 "	"	144.000150
156 "	"	.742858 "	"	156.000180
168 "	"	.800000 "	"	168.000000

115. This table shows how the various factors for the Doric Order **with the Pedestal** were obtained.

The height of this order is 25 modules and 4 parts. The module is divided into 12 parts.

Solution: 25 m. 4 p. × 12 = 304 p. total quota.

Quota	Total Quota	Factor	Total Quota	Proof for Accuracy	Quota	Total Quota	Factor	Total Quota	Proof for Accuracy
¼ ÷	304=	.000822369×	304=	.250000176	17½ ÷	304=	.0575658 ×	304=	17.5000032
½ "	"	.00164474 "	"	.50000096	18 "	"	.0592106 "	"	18.0000224
⅓ "	"	.00109540 "	"	.33300160	18¼ "	"	.0600329 "	"	18.2500016
⅔ "	"	.00219079 "	"	.66600016	18½ "	"	.0608553 "	"	18.5000112
¾ "	"	.00246711 "	"	.75000144	18¾ "	"	.0616777 "	"	18.7500208
1 "	"	.00328948 "	"	1.00000192	19 "	"	.0625000 "	"	19.0000000
1¼ "	"	.00411185 "	"	1.25000240	19¼ "	"	.0633224 "	"	19.2500096
1½ "	"	.00493422 "	"	1.50000288	19½ "	"	.0641448 "	"	19.5000192
1¾ "	"	.00575658 "	"	1.75000032	19¾ "	"	.0649672 "	"	19.7500288
2 "	"	.00657895 "	"	2.00000080	20 "	"	.0657895 "	"	20.0000080
2¼ "	"	.00740132 "	"	2.25000128	20¼ "	"	.0666119 "	"	20.2500176
2½ "	"	.00822369 "	"	2.50000176	20½ "	"	.0674343 "	"	20.5000272
2⅔ "	"	.00876974 "	"	2.66600096	20¾ "	"	.0682566 "	"	20.7500064
3 "	"	.00986843 "	"	3.00000276	21 "	"	.0690790 "	"	21.0000160
3¼ "	"	.0106908 "	"	3.2500032	21¼ "	"	.0699014 "	"	21.2500256
3½ "	"	.0115132 "	"	3.5000128	21½ "	"	.0707237 "	"	21.5000048
3⅔ "	"	.0120593 "	"	3.6660272	22 "	"	.0723685 "	"	22.0000240
3¾ "	"	.0123356 "	"	3.7500224	22¼ "	"	.0731908 "	"	22.2500032
4 "	"	.0131579 "	"	4.0000016	22½ "	"	.0740132 "	"	22.5000128
4¼ "	"	.0139803 "	"	4.2500112	23 "	"	.0756579 "	"	23.0000016
4½ "	"	.0148027 "	"	4.5000208	24 "	"	.0789474 "	"	24.0000096
5 "	"	.0164474 "	"	5.0000096	25 "	"	.0822369 "	"	25.0000176
5¼ "	"	.0172698 "	"	5.2500192	25½ "	"	.0838816 "	"	25.5000064
5½ "	"	.0180922 "	"	5.5000288	26 "	"	.0855264 "	"	26.0000256
5¾ "	"	.0189145 "	"	5.7500080	26½ "	"	.0871711 "	"	26.5000144
6 "	"	.0197369 "	"	6.0000176	27 "	"	.0888158 "	"	27.0000032
6¼ "	"	.0205593 "	"	6.2500272	27½ "	"	.0904606 "	"	27.5000224
6½ "	"	.0213816 "	"	6.5000064	28 "	"	.0921053 "	"	28.0000112
7 "	"	.0230264 "	"	7.0000256	28¼ "	"	.0929277 "	"	28.2500208
7½ "	"	.0246711 "	"	7.5000144	28½ "	"	.0937500 "	"	28.5000000
8 "	"	.0263158 "	"	8.0000032	28¾ "	"	.0945724 "	"	28.7500096
8½ "	"	.0279606 "	"	8.5000224	29 "	"	.0953948 "	"	29.0000192
9 "	"	.0296053 "	"	9.0000112	29¼ "	"	.0962172 "	"	29.2500288
9½ "	"	.0312500 "	"	9.5000000	29½ "	"	.0970395 "	"	29.5000080
10 "	"	.0328948 "	"	10.0000192	29¾ "	"	.0978619 "	"	29.7500176
10¼ "	"	.0337172 "	"	10.2500288	30 "	"	.0986843 "	"	30.0000272
10½ "	"	.0345395 "	"	10.5000080	30¼ "	"	.0995066 "	"	30.2500064
10¾ "	"	.0353619 "	"	10.7500176	30½ "	"	.100329 "	"	30.500016
11 "	"	.0361843 "	"	11.0000272	30¾ "	"	.101152 "	"	30.750208
11¼ "	"	.0370066 "	"	11.2500064	31 "	"	.101974 "	"	31.000096
11½ "	"	.0378290 "	"	11.5000160	31¼ "	"	.107297 "	"	31.250288
11¾ "	"	.0386514 "	"	11.7500256	31½ "	"	.103619 "	"	31.500176
12 "	"	.0394737 "	"	12.0000048	32 "	"	.105264 "	"	32.000256
12½ "	"	.0411185 "	"	12.5000240	32½ "	"	.106908 "	"	32.500032
13 "	"	.0427632 "	"	13.0000128	33 "	"	.108553 "	"	33.000112
13½ "	"	.0444079 "	"	13.5000016	33½ "	"	.110198 "	"	33.500192
13¾ "	"	.0452303 "	"	13.7500112	34 "	"	.111843 "	"	34.000272
14 "	"	.0460527 "	"	14.0000208	34¼ "	"	.112665 "	"	34.250160
14¼ "	"	.0468750 "	"	14.2500000	34½ "	"	.113487 "	"	34.500048
14½ "	"	.0476974 "	"	14.5000096	48 "	"	.157895 "	"	48.000080
15 "	"	.0493422 "	"	15.0000288	64 "	"	.210527 "	"	64.000208
15¼ "	"	.0501645 "	"	15.2500080	120 "	"	.394737 "	"	120.000048
15½ "	"	.0509869 "	"	15.5000176	156 "	"	.513158 "	"	156.000032
15¾ "	"	.0518093 "	"	15.7500272	168 "	"	.552632 "	"	168.000128
16 "	"	.0526316 "	"	16.0000064	180 "	"	.592106 "	"	180.000224
16½ "	"	.0542764 "	"	16.5000256	192 "	"	.631579 "	"	192.000016
17 "	"	.0559211×	"	17.0000144	240 "	"	.789474 "	"	240.000096

116.   This table shows how the various factors for the Doric Order **without the Pedestal** were obtained.

The height of this order is 20 modules. The module is divided into 12 parts.

Solution: 20 m. × 12 p. = 240 p. total quota.

Quota	Total Quota	Factor	Total Quota	Proof for Accuracy
¼ ÷	240=	.00104167 ×	240=	.25000080
½ "	"	.00208334 "	"	.50000160
⅓ "	"	.00138750 "	"	.33300000
⅔ "	"	.00277500 "	"	.66600000
¾ "	"	.00312500 "	"	.75000000
1 "	"	.00416667 "	"	1.00000080
1¼ "	"	.00520834 "	"	1.25000160
1½ "	"	.00625000 "	"	1.50000000
1¾ "	"	.00729167 "	"	1.75000080
2 "	"	.00833334 "	"	2.00000160
2¼ "	"	.00937500 "	"	2.25000000
2½ "	"	.0104167 "	"	2.5000000
2⅔ "	"	.0111084 "	"	2.6660160
3 "	"	.0125000 "	"	3.0000000
3¼ "	"	.0135417 "	"	3.2500080
3½ "	"	.0145834 "	"	3.5000160
3⅔ "	"	.0152750 "	"	3.6660000
3¾ "	"	.0156250 "	"	3.7500000
4 "	"	.0166667 "	"	4.0000080
4¼ "	"	.0177084 "	"	4.2500160
4½ "	"	.0187500 "	"	4.5000000
5. "	"	.0208334 "	"	5.0000160
5¼ "	"	.0218750 "	"	5.2500000
5½ "	"	.0229167 "	"	5.5000080
5¾ "	"	.0239584 "	"	5.7500160
6 "	"	.0250000 "	"	6.0000000
6¼ "	"	.0260417 "	"	6.2500080
6½ "	"	.0270834 "	"	6.5000160
7 "	"	.0291667 "	"	7.0000080
7½ "	"	.0312500 "	"	7.5000000
8 "	"	.0333334 "	"	8.0000160
8½ "	"	.0354167 "	"	8.5000080
9 "	"	.0375000 "	"	9.0000000
9½ "	"	.0395834 "	"	9.5000160
10 "	"	.0416667 "	"	10.0000080
10¼ "	"	.0427084 "	"	10.2500160
10½ "	"	.0437500 "	"	10.5000000
10¾ "	"	.0447917 "	"	10.7500000
11 "	"	.0458334 "	"	11.0000160
11¼ "	"	.0468750 "	"	11.2500000
11½ "	"	.0479167 "	"	11.5000080
11¾ "	"	.0489584 "	"	11.7500160
12 "	"	.0500000 "	"	12.0000000
12½ "	"	.0520834 "	"	12.5000160
13 "	"	.0541667 "	"	13.0000080
13½ "	"	.0562500 "	"	13.5000000
13¾ "	"	.0572917 "	"	13.7500080
14 "	"	.0583334 "	"	14.0000160
14¼ "	"	.0593750 "	"	14.2500000
14½ "	"	.0604167 "	"	14.5000080
15 "	"	.0625000 "	"	15.0000000
15¼ "	"	.0635417 "	"	15.2500080
15½ "	"	.0645834 "	"	15.5000160
15¾ "	"	.0656250 "	"	15.7500000
16 "	"	.0666667 "	"	16.0000080
16½ "	"	.0687500 "	"	16.5000000
17 "	"	.0708334 "	"	17.0000160
17½ "	"	.0729167 "	"	17.5000080

Quota	Total Quota	Factor	Total Quota	Proof for Accuracy
18 ÷	240=	.0750000 ×	240=	18.0000000
18¼ "	"	.0760417 "	"	18.2500080
18½ "	"	.0770834 "	"	18.5000160
18¾ "	"	.0781250 "	"	18.7500000
19 "	"	.0791667 "	"	19.0000080
19¼ "	"	.0802084 "	"	19.2500160
19½ "	"	.0812500 "	"	19.5000000
19¾ "	"	.0822917 "	"	19.7500050
20 "	"	.0833334 "	"	20.0000160
20¼ "	"	.0843750 "	"	20.2500000
20½ "	"	.0854167 "	"	20.5000000
20¾ "	"	.0864584 "	"	20.7500160
21 "	"	.0875000 "	"	21.0000000
21¼ "	"	.0885417 "	"	21.2500080
21½ "	"	.0895834 "	"	21.5000160
22 "	"	.0916667 "	"	22.0000080
22¼ "	"	.0927084 "	"	22.2500160
22½ "	"	.0937500 "	"	22.5000000
23 "	"	.0958334 "	"	23.0000160
24 "	"	.100000 "	"	24.000000
25 "	"	.104167 "	"	25.000080
25½ "	"	.106250 "	"	25.500000
26 "	"	.108334 "	"	26.000160
26½ "	"	.110417 "	"	26.500080
27 "	"	.112500 "	"	27.000000
27½ "	"	.114584 "	"	27.500160
28 "	"	.116667 "	"	28.000080
28¼ "	"	.117709 "	"	28.250160
28½ "	"	.118750 "	"	28.500000
29 "	"	.120834 "	"	29.000160
29¼ "	"	.121875 "	"	29.250000
29½ "	"	.122917 "	"	29.500080
29¾ "	"	.123959 "	"	29.750160
30 "	"	.125000 "	"	30.000000
30¼ "	"	.126042 "	"	30.250080
30½ "	"	.127084 "	"	30.500160
30¾ "	"	.128125 "	"	30.750000
31 "	"	.129167 "	"	31.000080
31¼ "	"	.130209 "	"	31.250160
31½ "	"	.131250 "	"	31.500000
32 "	"	.133334 "	"	32.000160
32½ "	"	.135417 "	"	32.500080
33 "	"	.137500 "	"	33.000000
33½ "	"	.139584 "	"	33.500160
34 "	"	.141667 "	"	34.000000
34¼ "	"	.142709 "	"	34.250160
34½ "	"	.143750 "	"	34.500000
48 "	"	.200000 "	"	48.000000
66 "	"	.275000 "	"	66.000000
84 "	"	.350000 "	"	84.000000
90 "	"	.375000 "	"	90.000000
96 "	"	.400000 "	"	96.000000
102 "	"	.425000 "	"	102.000000
120 "	"	.500000 "	"	120.000000
126 "	"	.525000 "	"	126.000000
168 "	"	.700000 "	"	168.000000
192 "	"	.800000 "	"	192.000000

117. This table shows how the various factors for the Ionic Order **with the Pedestal** were obtained.

The height of this order is 28 modules and 9 parts. The module is divided into 18 parts.

Solution: 28 m. 9 p. × 18 p. = 513 p. total quota.

Quota	Total Quota	Factor	Total Quota	Proof for Accuracy
1/4 ÷	513=	.000487330 ×	513=	.250000290
1/3 "	"	.000649123 "	"	.333000099
1/2 "	"	.000974659 "	"	.500000067
2/3 "	"	.00129825 "	"	.66600225
3/4 "	"	.00146199 "	"	.75000087
1 "	"	.00194932 "	"	1.00000116
1 1/4 "	"	.00243665 "	"	1.25000145
1 1/2 "	"	.00292398 "	"	1.50000174
1 3/4 "	"	.00341131 "	"	1.75000203
2 "	"	.00389864 "	"	2.00000232
2 1/4 "	"	.00438597 "	"	2.25000261
2 1/2 "	"	.00487330 "	"	2.50000290
2 3/4 "	"	.00536063 "	"	2.75000319
3 "	"	.00584796 "	"	3.00000348
3 1/4 "	"	.00633529 "	"	3.25000377
3 1/2 "	"	.00682262 "	"	3.50000406
3 3/4 "	"	.00730995 "	"	3.75000435
4 "	"	.00779728 "	"	4.00000464
4 1/4 "	"	.00828461 "	"	4.25000493
4 1/2 "	"	.00877193 "	"	4.50000009
4 3/4 "	"	.00925926 "	"	4.75000038
5 "	"	.00974659 "	"	5.00000067
5 1/2 "	"	.0107213 "	"	5.5000269
5 3/4 "	"	.0112086 "	"	5.7500118
6 "	"	.0116960 "	"	6.0000480
6 1/4 "	"	.0128133 "	"	6.2500329
6 1/2 "	"	.0126706 "	"	6.5000178
7 "	"	.0136453 "	"	7.0000389
7 1/4 "	"	.0141326 "	"	7.2500238
7 1/2 "	"	.0146199 "	"	7.5000087
8 "	"	.0155946 "	"	8.0000298
8 1/4 "	"	.0160819 "	"	8.2500147
8 1/2 "	"	.0165693 "	"	8.5000509
8 3/4 "	"	.0170566 "	"	8.7500358
9 "	"	.0175439 "	"	9.0000207
9 1/2 "	"	.0185186 "	"	9.5000418
10 "	"	.0194932 "	"	10.0000116
10 1/2 "	"	.0204679 "	"	10.5000327
11 "	"	.0214425 "	"	11.0000025
11 1/2 "	"	.0224172 "	"	11.5000236
11 3/4 "	"	.0229045 "	"	11.7500085
12 "	"	.0233919 "	"	12.0000447
12 1/2 "	"	.0243665 "	"	12.5000145
12 3/4 "	"	.0248539 "	"	12.7500507
13 "	"	.0253412 "	"	13.0000356
13 1/2 "	"	.0263158 "	"	13.5000054
14 "	"	.0272905 "	"	14.0000265
14 1/2 "	"	.0282652 "	"	14.5000476
15 "	"	.0292398 "	"	15.0000175
15 1/2 "	"	.0302145 "	"	15.5000385

Quota	Total Quota	Factor	Total Quota	Proof for Accuracy
15 3/4 ÷	513=	.0307018 ×	513=	15.7500234
16 "	"	.0311891 "	"	16.0000083
16 1/4 "	"	.0316765 "	"	16.2500445
16 1/2 "	"	.0321638 "	"	16.5000294
16 3/4 "	"	.0326511 "	"	16.7500143
17 "	"	.0331385 "	"	17.0000505
17 1/2 "	"	.0341131 "	"	17.5000203
17 3/4 "	"	.0346004 "	"	17.7500052
18 "	"	.0350878 "	"	18.0000414
18 1/2 "	"	.0360624 "	"	18.5000112
19 "	"	.0370371 "	"	19.0000323
19 1/4 "	"	.0375544 "	"	19.2500172
19 1/2 "	"	.0380117 "	"	19.5000021
19 3/4 "	"	.0384991 "	"	19.7500385
20 "	"	.0389864 "	"	20.0000232
20 1/2 "	"	.0399611 "	"	20.5000443
21 "	"	.0409357 "	"	21.0000141
21 1/2 "	"	.0419104 "	"	21.5000352
22 "	"	.0428850 "	"	22.0000050
22 1/4 "	"	.0433724 "	"	22.2500312
22 1/2 "	"	.0438597 "	"	22.5000261
22 3/4 "	"	.0443470 "	"	22.7500100
23 "	"	.0448344 "	"	23.0000472
23 1/2 "	"	.0458090 "	"	23.5000170
23 3/4 "	"	.0462963 "	"	23.7500019
24 "	"	.0467837 "	"	24.0000381
24 1/4 "	"	.0472710 "	"	24.2500230
24 1/2 "	"	.0477583 "	"	24.5000079
24 3/4 "	"	.0482457 "	"	24.7500441
25 "	"	.0487330 "	"	25.0000290
25 1/4 "	"	.0492203 "	"	25.2500139
25 1/2 "	"	.0497077 "	"	25.5000501
26 "	"	.0506823 "	"	26.0000199
26 1/2 "	"	.0516570 "	"	26.5000410
26 3/4 "	"	.0521443 "	"	26.7500259
27 "	"	.0526316 "	"	27.0000108
27 1/2 "	"	.0536063 "	"	27.5000319
27 3/4 "	"	.0540936 "	"	27.7500168
28 "	"	.0545809 "	"	28.0000017
28 1/4 "	"	.0550683 "	"	28.2500279
28 1/2 "	"	.0555556 "	"	28.5000225
28 3/4 "	"	.0560429 "	"	28.7500077
29 "	"	.0565303 "	"	29.0000439
29 1/4 "	"	.0570176 "	"	29.2500288
29 1/2 "	"	.0575049 "	"	29.5000137
29 3/4 "	"	.0579923 "	"	29.7500499
30 "	"	.0584796 "	"	30.0000348
30 1/2 "	"	.0594542 "	"	30.5000046
31 "	"	.0604289 "	"	31.0000257
31 1/4 "	"	.0609162 "	"	31.2500106

Quota	Total Quota	Factor	Total Quota	Proof for Accuracy
31 1/2 ÷	513=	.0614036 ×	513=	31.5000468
32 "	"	.0623782 "	"	32.0000166
32 1/2 "	"	.0633529 "	"	32.5000377
33 "	"	.0643275 "	"	33.0000075
33 1/4 "	"	.0648149 "	"	33.2500437
33 1/2 "	"	.0653022 "	"	33.5000286
34 "	"	.0662769 "	"	34.0000497
35 "	"	.0682262 "	"	35.0000406
36 "	"	.0701755 "	"	36.0000315
37 "	"	.0721248 "	"	37.0000224
38 "	"	.0740741 "	"	38.0000133
38 1/2 "	"	.0750488 "	"	38.5000344
39 "	"	.0760234 "	"	39.0000042
40 "	"	.0779728 "	"	40.0000464
40 1/4 "	"	.0784601 "	"	40.2500313
41 "	"	.0799221 "	"	41.0000373
41 1/2 "	"	.0808967 "	"	41.5000071
41 3/4 "	"	.0813841 "	"	41.7500423
42 "	"	.0818714 "	"	42.0000282
42 1/2 "	"	.0828461 "	"	42.5000493
43 "	"	.0838207 "	"	43.0000191
43 1/2 "	"	.0847954 "	"	43.5000402
44 "	"	.0857700 "	"	44.0000100
44 1/2 "	"	.0867447 "	"	44.5000311
44 3/4 "	"	.0872320 "	"	44.7500160
45 "	"	.0877193 "	"	45.0000009
45 1/2 "	"	.0886940 "	"	45.5000220
46 "	"	.0896687 "	"	46.0000431
46 1/4 "	"	.0901560 "	"	46.2500280
46 1/2 "	"	.0906433 "	"	46.5000129
47 "	"	.0916180 "	"	47.0000340
48 "	"	.0935673 "	"	48.0000249
48 1/2 "	"	.0945420 "	"	48.5000460
49 "	"	.0955166 "	"	49.0000158
50 "	"	.0974659 "	"	50.0000067
51 "	"	.0994153 "	"	51.0000489
53 "	"	.103314 "	"	53.000082
9 3/4 "	"	.0190059 "	"	9.7500267
81 "	"	.157895 "	"	81.000135
88 "	"	.171540 "	"	88.000020
90 "	"	.175439 "	"	90.000207
108 "	"	.210527 "	"	108.000351
198 "	"	.385965 "	"	198.000445
234 "	"	.456141 "	"	234.000333
270 "	"	.526316 "	"	270.000108
291 "	"	.567252 "	"	291.000278
297 "	"	.578948 "	"	297.000324
324 "	"	.631579 "	"	324.000027
396 "	"	.771930 "	"	396.000090

118. This table shows how the various factors for the Ionic Order **without the Pedestal** were obtained.

The height of this order is 22 modules and 9 parts. The module is divided into 18 parts.

Solution: 22 m. 9 p. × 18 = 405 p. total quota.

Quota	Total Quota	Factor	Total Quota	Proof for Accuracy
¼ ÷	405 =	.000617284 ×	405 =	.250000290
⅓ "	"	.000822223 "	"	.333000315
½ "	"	.00123457 "	"	.50000085
⅔ "	"	.00164445 "	"	.66600225
¾ "	"	.00185186 "	"	.75000330
1 "	"	.00246914 "	"	1.00000170
1¼ "	"	.00308642 "	"	1.25000010
1½ "	"	.00370371 "	"	1.50000225
1¾ "	"	.00432099 "	"	1.75000095
2 "	"	.00493828 "	"	2.00000340
2¼ "	"	.00555556 "	"	2.25000180
2½ "	"	.00617284 "	"	2.50000020
2¾ "	"	.00679013 "	"	2.75000265
3 "	"	.00740741 "	"	3.00000105
3¼ "	"	.00802470 "	"	3.25000350
3½ "	"	.00864198 "	"	3.50000190
3¾ "	"	.00925926 "	"	3.75000030
4 "	"	.00987655 "	"	4.00000275
4¼ "	"	.0104939 "	"	4.2500295
4½ "	"	.0111112 "	"	4.5000360
4¾ "	"	.0117284 "	"	4.7500320
5 "	"	.0123457 "	"	5.0000085
5½ "	"	.0135803 "	"	5.5000215
5¾ "	"	.0141976 "	"	5.7500280
6 "	"	.0148149 "	"	6.0000345
6¼ "	"	.0154321 "	"	6.2500005
6½ "	"	.0160494 "	"	6.5000070
7 "	"	.0172840 "	"	7.0000200
7¼ "	"	.0179013 "	"	7.2500265
7½ "	"	.0185186 "	"	7.5000330
8 "	"	.0197531 "	"	8.0000055
8¼ "	"	.0203704 "	"	8.2500120
8½ "	"	.0209877 "	"	8.5000185
8¾ "	"	.0216050 "	"	8.7500250
9 "	"	.0222223 "	"	9.0000315
9½ "	"	.0234568 "	"	9.5000045
10 "	"	.0246914 "	"	10.0000170
10½ "	"	.0259260 "	"	10.5000300
11 "	"	.0271605 "	"	11.0000025
11½ "	"	.0283951 "	"	11.5000155
11¾ "	"	.0290124 "	"	11.7500220
12 "	"	.0296297 "	"	12.0000285
12½ "	"	.0308642 "	"	12.5000010
12¾ "	"	.0314815 "	"	12.7500075
13 "	"	.0320988 "	"	13.0000140
13½ "	"	.0333334 "	"	13.5000270
14 "	"	.0345680 "	"	14.0000400
14½ "	"	.0358025 "	"	14.5000125
15 "	"	.0370371 "	"	15.0000255
15½ "	"	.0382717 "	"	15.5000385
15¾ "	"	.0388889 "	"	15.7500045
16 "	"	.0395062 "	"	16.0000110

Quota	Total Quota	Factor	Total Quota	Proof for Accuracy
16¼ ÷	405 =	.0401235 ×	405 =	16.2500175
16½ "	"	.0407408 "	"	16.5000240
16¾ "	"	.0413581 "	"	16.7500305
17 "	"	.0419754 "	"	17.0000375
17¼ "	"	.0425926 "	"	17.2500030
17½ "	"	.0432099 "	"	17.5000095
17¾ "	"	.0438272 "	"	17.7500260
18 "	"	.0444445 "	"	18.0000225
18½ "	"	.0456791 "	"	18.5000355
19 "	"	.0469163 "	"	19.0000080
19¼ "	"	.0475309 "	"	19.2500145
19½ "	"	.0481482 "	"	19.5000210
19¾ "	"	.0487655 "	"	19.7500275
20 "	"	.0493828 "	"	20.0000340
20½ "	"	.0506173 "	"	20.5000065
21 "	"	.0518519 "	"	21.0000195
21½ "	"	.0530865 "	"	21.5000325
22 "	"	.0543210 "	"	22.0000050
22¼ "	"	.0549383 "	"	22.2500115
22½ "	"	.0555556 "	"	22.5000180
22¾ "	"	.0561729 "	"	22.7500245
23 "	"	.0567902 "	"	23.0000310
23½ "	"	.0580247 "	"	23.5000035
23¾ "	"	.0586420 "	"	23.7500100
24 "	"	.0592593 "	"	24.0000165
24¼ "	"	.0598766 "	"	24.2500230
24½ "	"	.0604939 "	"	24.5000295
24¾ "	"	.0611112 "	"	24.7500360
25 "	"	.0617284 "	"	25.0000020
25¼ "	"	.0623457 "	"	25.2500085
25½ "	"	.0629630 "	"	25.5000150
26 "	"	.0641976 "	"	26.0000280
26½ "	"	.0654321 "	"	26.5000005
26¾ "	"	.0660494 "	"	26.7500070
27 "	"	.0666667 "	"	27.0000135
27½ "	"	.0679013 "	"	27.5000265
27¾ "	"	.0685186 "	"	27.7500330
28 "	"	.0691359 "	"	28.0000395
28¼ "	"	.0697531 "	"	28.2500055
28½ "	"	.0703704 "	"	28.5000120
28¾ "	"	.0709877 "	"	28.7500185
29 "	"	.0716050 "	"	29.0000250
29¼ "	"	.0722223 "	"	29.2500315
29½ "	"	.0728396 "	"	29.5000380
29¾ "	"	.0734568 "	"	29.7500040
30 "	"	.0740741 "	"	30.0000105
30½ "	"	.0753087 "	"	30.5000235
31 "	"	.0765433 "	"	31.0000365
31¼ "	"	.0771605 "	"	31.2500025
31½ "	"	.0777778 "	"	31.5000050
32 "	"	.0790124 "	"	32.0000020
32½ "	"	.0802470 "	"	32.5000350

Quota	Total Quota	Factor	Total Quota	Proof for Accuracy
33 ÷	405 =	.0814815 ×	405 =	33.0000075
33¼ "	"	.0820988 "	"	33.2500140
33½ "	"	.0827161 "	"	33.5000205
34 "	"	.0839507 "	"	34.0000335
34½ "	"	.0851852 "	"	34.5000060
35 "	"	.0864198 "	"	35.0000190
36 "	"	.0888889 "	"	36.0000045
37 "	"	.0913581 "	"	37.0000305
38 "	"	.0938272 "	"	38.0000160
38½ "	"	.0950618 "	"	38.5000290
39 "	"	.0962963 "	"	39.0000015
39¼ "	"	.0969136 "	"	39.2500080
40 "	"	.0987655 "	"	40.0000275
40¼ "	"	.0993828 "	"	40.2500340
41 "	"	.101235 "	"	41.000175
41½ "	"	.102470 "	"	41.500350
41¾ "	"	.103087 "	"	41.750235
42 "	"	.103704 "	"	42.000120
42½ "	"	.104939 "	"	42.500295
43 "	"	.106173 "	"	43.000065
43½ "	"	.107408 "	"	43.500240
44 "	"	.108642 "	"	44.000010
44½ "	"	.109877 "	"	44.500185
44¾ "	"	.110494 "	"	44.750070
45 "	"	.111112 "	"	45.000360
45½ "	"	.112346 "	"	45.500130
46 "	"	.113581 "	"	46.000305
46¼ "	"	.114198 "	"	46.250190
46½ "	"	.114815 "	"	46.500075
47 "	"	.116050 "	"	47.000250
48 "	"	.118519 "	"	48.000195
48½ "	"	.119754 "	"	48.500370
49 "	"	.120988 "	"	49.000140
50 "	"	.123457 "	"	50.000085
51 "	"	.125926 "	"	51.000030
53 "	"	.130865 "	"	53.000325
9¾ "	"	.0240741 "	"	9.7500105
81 "	"	.200000 "	"	81.000000
88 "	"	.217284 "	"	88.000020
90 "	"	.222223 "	"	90.000315
108 "	"	.266667 "	"	108.000130
117 "	"	.288889 "	"	117.000045
153 "	"	.377778 "	"	153.000090
171 "	"	.422223 "	"	171.000315
180 "	"	.444445 "	"	180.000225
207 "	"	.511112 "	"	207.000360
216 "	"	.533334 "	"	216.000270
229½ "	"	.566667 "	"	229.500135
291 "	"	.718519 "	"	291.000195
306 "	"	.755556 "	"	306.000180
324 "	"	.800000 "	"	324.000000

119. This table shows how the various factors for the Corinthian and Composite Orders **with the Pedestal** were obtained.

The height of these orders is 31 modules and 12 parts. The module is divided into 18 parts.

Solution: 31 m. 12 p. $\times$ 18 p. = 570 p. total quota.

Quota	Total Quota	Factor	Total Quota	Proof for Accuracy
¼ ÷	570=	.000438597 ×	570=	.250000290
½ "	"	.000877193 "	"	.500000011
⅓ "	"	.000584211 "	"	.333000270
⅔ "	"	.00116843 "	"	.66600510
¾ "	"	.00131579 "	"	.75000030
1 "	"	.00175439 "	"	1.00000230
1¼ "	"	.00219299 "	"	1.25000430
1½ "	"	.00263158 "	"	1.50000060
1⅓ "	"	.00233860 "	"	1.33300200
1⅔ "	"	.00292281 "	"	1.66600170
1¾ "	"	.00307018 "	"	1.75000260
2 "	"	.00350878 "	"	2.00000460
2¼ "	"	.00394737 "	"	2.25000090
2½ "	"	.00438597 "	"	2.50000290
2¾ "	"	.00482457 "	"	2.75000490
3 "	"	.00526316 "	"	3.00000120
3¼ "	"	.00570176 "	"	3.25000320
3½ "	"	.00614036 "	"	3.50000520
3¾ "	"	.00657895 "	"	3.75000150
4 "	"	.00701755 "	"	4.00000550
4¼ "	"	.00745615 "	"	4.25000550
4½ "	"	.00789474 "	"	4.50000180
4¾ "	"	.00833334 "	"	4.75000380
5 "	"	.00877193 "	"	5.00000010
5¼ "	"	.00921053 "	"	5.25000210
5½ "	"	.00964913 "	"	5.50000410
5¾ "	"	.0100878 "	"	5.7500460
6 "	"	.0105264 "	"	6.0000480
6¼ "	"	.0109650 "	"	6.2500500
6½ "	"	.0114036 "	"	6.5000520
6¾ "	"	.0118422 "	"	6.7500540
7 "	"	.0122808 "	"	7.0000560
7¼ "	"	.0127193 "	"	7.2500010
7½ "	"	.0131579 "	"	7.5000030
7¾ "	"	.0135965 "	"	7.7500050
8 "	"	.0140351 "	"	8.0000070
8½ "	"	.0149123 "	"	8.5000110
8¾ "	"	.0153509 "	"	8.7500130
9 "	"	.0157895 "	"	9.0000150
9½ "	"	.0166667 "	"	9.5000190
10 "	"	.0175439 "	"	10.0000230
10¼ "	"	.0179826 "	"	10.2500820
10½ "	"	.0184211 "	"	10.5000270
11 "	"	.0192983 "	"	11.0000310
11½ "	"	.0201755 "	"	11.500030
11¾ "	"	.0206141 "	"	11.7500370
12 "	"	.0210527 "	"	12.0000390
12½ "	"	.0219299 "	"	12.5000430
13 "	"	.0228071 "	"	13.0000470
13½ "	"	.0236843 "	"	13.5000510
13¾ "	"	.0241229 "	"	13.7500530
14 "	"	.0245615 "	"	14.0000550

Quota	Total Quota	Factor	Total Quota	Proof for Accuracy
14¼ ÷	570=	.0250000 ×	570=	14.2500000
14½ "	"	.0254386 "	"	14.5000020
15 "	"	.0263158 "	"	15.0000060
15½ "	"	.0271930 "	"	15.5000100
15¾ "	"	.0276316 "	"	15.7500120
16 "	"	.0280702 "	"	16.0000140
16¼ "	"	.0285088 "	"	16.2500160
16½ "	"	.0289474 "	"	16.5000180
16¾ "	"	.0293860 "	"	16.7500200
17 "	"	.0298246 "	"	17.0000220
17¼ "	"	.0302632 "	"	17.2500240
17½ "	"	.0307018 "	"	17.5000260
17¾ "	"	.0311404 "	"	17.7500280
18 "	"	.0315790 "	"	18.0000300
18¼ "	"	.0320176 "	"	18.2500320
18½ "	"	.0324562 "	"	18.5000340
18¾ "	"	.0328948 "	"	18.7500360
19 "	"	.0333334 "	"	19.0000380
19¼ "	"	.0337720 "	"	19.2500400
19½ "	"	.0342106 "	"	19.5000420
19¾ "	"	.0346492 "	"	19.7500440
20 "	"	.0350878 "	"	20.0000460
20¼ "	"	.0355264 "	"	20.2500480
20½ "	"	.0359650 "	"	20.5000500
20¾ "	"	.0364036 "	"	20.7500520
21 "	"	.0368422 "	"	21.0000540
21½ "	"	.0377193 "	"	21.5000010
22 "	"	.0385965 "	"	22.0000050
22¼ "	"	.0390351 "	"	22.2500070
22½ "	"	.0394737 "	"	22.5000090
22¾ "	"	.0399123 "	"	22.7500110
23 "	"	.0403509 "	"	23.0000130
23½ "	"	.0412281 "	"	23.5000170
23¾ "	"	.0416667 "	"	23.7500190
24 "	"	.0421053 "	"	24.0000210
24½ "	"	.0429825 "	"	24.5000250
25 "	"	.0438597 "	"	25.0000290
25¼ "	"	.0442983 "	"	25.2500310
25½ "	"	.0447369 "	"	25.5000330
26 "	"	.0456141 "	"	26.0000370
26¼ "	"	.0460527 "	"	26.2500390
26½ "	"	.0464913 "	"	26.5000410
27 "	"	.0473685 "	"	27.0000450
27¼ "	"	.0478071 "	"	27.2500470
27½ "	"	.0482457 "	"	27.5000490
28 "	"	.0491229 "	"	28.0000530
28½ "	"	.0500000 "	"	28.5000000
28¾ "	"	.0504386 "	"	28.7500020
29 "	"	.0508772 "	"	29.0000040
29¼ "	"	.0513158 "	"	29.2500060
29½ "	"	.0517544 "	"	29.5000080
29¾ "	"	.0521913 "	"	29.7500410

Quota	Total Quota	Factor	Total Quota	Proof for Accuracy
30 ÷	570=	.0526316 ×	570=	30.0000120
30½ "	"	.0535088 "	"	30.5000160
31 "	"	.0543860 "	"	31.0000200
31¼ "	"	.0548246 "	"	31.2500220
31½ "	"	.0552632 "	"	31.5000240
31¾ "	"	.0557018 "	"	31.7500260
32 "	"	.0561404 "	"	32.0000280
32½ "	"	.0570176 "	"	32.5000320
32¾ "	"	.0574562 "	"	32.7500340
33 "	"	.0578948 "	"	33.0000360
34 "	"	.0596492 "	"	34.0000440
35 "	"	.0614036 "	"	35.0000520
36 "	"	.0631579 "	"	36.0000030
37 "	"	.0649123 "	"	37.0000110
38 "	"	.0666667 "	"	38.0000190
39 "	"	.0684211 "	"	39.0000270
40 "	"	.0701755 "	"	40.0000350
41 "	"	.0719299 "	"	41.0000430
42 "	"	.0736843 "	"	42.0000510
42½ "	"	.0745615 "	"	42.5000550
43 "	"	.0754386 "	"	43.0000020
43½ "	"	.0763158 "	"	43.5000060
44 "	"	.0771930 "	"	44.0000100
44½ "	"	.0780702 "	"	44.5000140
45 "	"	.0789474 "	"	45.0000180
45½ "	"	.0798246 "	"	45.5000222
46 "	"	.0807018 "	"	46.0000260
46¼ "	"	.0811404 "	"	46.2500280
46½ "	"	.0815790 "	"	46.5000300
46¾ "	"	.0820176 "	"	46.7500320
47 "	"	.0824562 "	"	47.0000300
47½ "	"	.0833334 "	"	47.5000380
47¾ "	"	.0837720 "	"	47.7500400
48 "	"	.0842106 "	"	48.0000420
49 "	"	.0859650 "	"	49.0000500
50 "	"	.0877193 "	"	50.0000010
51 "	"	.0894737 "	"	51.0000090
53 "	"	.0929825 "	"	53.0000250
90 "	"	.157895 "	"	90.000150
91 "	"	.159650 "	"	91.000500
92 "	"	.161404 "	"	92.000280
94 "	"	.164913 "	"	94.000410
120 "	"	.210527 "	"	120.000390
216 "	"	.378948 "	"	216.000360
252 "	"	.442106 "	"	252.000420
288 "	"	.505264 "	"	288.000480
300 "	"	.526316 "	"	300.000120
342 "	"	.600000 "	"	342.000000
360 "	"	.631579 "	"	360.000030
450 "	"	.789474 "	"	450.000180

120. This table shows how the various factors for the Corinthian and Composite Orders **without the Pedestal** were obtained. The height of these orders is 25 modules. The module is divided into 18 parts.

Solution: 25 m. × 18 p. = 450 p. total quota.

Quota	Total Quota	Factor	Total Quota	Proof for Accuracy
¼ ÷	450=	.000555556 ×	450=	.250000200
½ "	"	.00111112 "	"	.50000400
⅓ "	"	.000733334 "	"	.330000300
⅔ "	"	.00146667 "	"	.66000150
¾ "	"	.00166667 "	"	.75000150
1 "	"	.00222223 "	"	1.00000350
1¼ "	"	.00277778 "	"	1.25000100
1½ "	"	.00333334 "	"	1.50000300
1⅓ "	"	.00295556 "	"	1.33000203
1⅔ "	"	.00368889 "	"	1.66000050
1¾ "	"	.00388889 "	"	1.75000050
2 "	"	.00444445 "	"	2.00000250
2¼ "	"	.00500000 "	"	2.25000000
2½ "	"	.00555556 "	"	2.50000020
2¾ "	"	.00611112 "	"	2.75000400
3 "	"	.00666667 "	"	3.00000150
3¼ "	"	.00722223 "	"	3.25000350
3½ "	"	.00777778 "	"	3.50000100
3¾ "	"	.00833334 "	"	3.75000300
4 "	"	.00888889 "	"	4.00000050
4¼ "	"	.00944445 "	"	4.25000250
4½ "	"	.0100000 "	"	4.5000000
4¾ "	"	.0105556 "	"	4.7500200
5 "	"	.0111112 "	"	5.0000400
5¼ "	"	.0116667 "	"	5.2500150
5½ "	"	.0122223 "	"	5.5000350
5¾ "	"	.0127778 "	"	5.7500100
6 "	"	.0133334 "	"	6.0000300
6¼ "	"	.0138889 "	"	6.2500050
6½ "	"	.0144445 "	"	6.5000250
6¾ "	"	.0150000 "	"	6.7500000
7 "	"	.0155556 "	"	7.0000200
7¼ "	"	.0161112 "	"	7.2500400
7½ "	"	.0166667 "	"	7.5000150
7¾ "	"	.0172223 "	"	7.7500350
8 "	"	.0177778 "	"	8.0000100
8½ "	"	.0188889 "	"	8.5000050
8¾ "	"	.0194445 "	"	8.7500250
9 "	"	.0200000 "	"	9.0000000
9½ "	"	.0211122 "	"	9.5000400
10 "	"	.0222223 "	"	10.0000350
10½ "	"	.0233334 "	"	10.5000300
11 "	"	.0244445 "	"	11.0000250
11½ "	"	.0255556 "	"	11.5000200
11¾ "	"	.0261112 "	"	11.7500400
12 "	"	.0266667 "	"	12.0000150
12½ "	"	.0277778 "	"	12.5000100
13 "	"	.0288889 "	"	13.0000050
13½ "	"	.0300000 "	"	13.5000000
13¾ "	"	.0305556 "	"	13.7500200
14 "	"	.0311112 "	"	16.0000400
10¼ "	"	.0227778 "	"	10.2500100
14¼ ÷	450=	.0316667 ×	450=	14.2500150
14½ "	"	.0322223 "	"	14.5000350
15 "	"	.0333334 "	"	15.0000350
15½ "	"	.0344445 "	"	15.5000250
15¾ "	"	.0350000 "	"	15.7500000
16 "	"	.0355556 "	"	16.0000200
16¼ "	"	.0361112 "	"	16.2500400
16½ "	"	.0366667 "	"	16.5000150
16¾ "	"	.0372223 "	"	16.7500350
17 "	"	.0377778 "	"	17.0000100
17¼ "	"	.0383334 "	"	17.2500300
17½ "	"	.0388889 "	"	17.5000050
17¾ "	"	.0394445 "	"	17.7500250
18 "	"	.0400000 "	"	18.0000000
18¼ "	"	.0405556 "	"	18.2500200
18½ "	"	.0411112 "	"	18.5000400
18¾ "	"	.0416667 "	"	18.7500150
19 "	"	.0422223 "	"	19.0000350
19¼ "	"	.0427778 "	"	19.2500100
19½ "	"	.0433334 "	"	19.5000300
19¾ "	"	.0438889 "	"	19.7500050
20 "	"	.0444445 "	"	20.0000250
20¼ "	"	.0450000 "	"	20.2500000
20½ "	"	.0455556 "	"	20.5000200
20¾ "	"	.0461112 "	"	20.7500400
21 "	"	.0466667 "	"	21.0000150
21½ "	"	.0477778 "	"	21.5000100
22 "	"	.0488889 "	"	22.0000050
22¼ "	"	.0494445 "	"	22.2500250
22½ "	"	.0500000 "	"	22.5000000
22¾ "	"	.0505556 "	"	22.7500200
23 "	"	.0511112 "	"	23.0000400
23½ "	"	.0522223 "	"	23.5000350
23¾ "	"	.0527778 "	"	23.7500100
24 "	"	.0533334 "	"	24.0000300
24½ "	"	.0544445 "	"	24.5000250
25 "	"	.0555556 "	"	25.0000200
25¼ "	"	.0561112 "	"	25.2500400
25½ "	"	.0566667 "	"	25.5000150
26 "	"	.0577778 "	"	26.0000100
26¼ "	"	.0583334 "	"	26.2500300
26½ "	"	.0588889 "	"	26.5000050
27 "	"	.0600000 "	"	27.0000000
27¼ "	"	.0605556 "	"	27.2500200
27½ "	"	.0611112 "	"	27.5000400
28 "	"	.0622223 "	"	28.0000350
28½ "	"	.0633334 "	"	28.5000300
28¾ "	"	.0638889 "	"	28.7500050
29 "	"	.0644445 "	"	29.0000250
29¼ "	"	.0650000 "	"	29.2500000
29½ "	"	.0655556 "	"	29.5000200
29¾ "	"	.0661112 "	"	29.7500400
30 ÷	450=	.0666667 ×	450=	30.0000150
30½ "	"	.0677778 "	"	30.5000100
31 "	"	.0688889 "	"	31.0000050
31¼ "	"	.0694445 "	"	31.2500250
31½ "	"	.0700000 "	"	31.5000000
31¾ "	"	.0705556 "	"	31.7500200
32 "	"	.0711112 "	"	32.0000400
32½ "	"	.0722223 "	"	32.5000300
32¾ "	"	.0727778 "	"	32.7500100
33 "	"	.0733334 "	"	33.0000300
34 "	"	.0755556 "	"	34.0000200
35 "	"	.0777778 "	"	35.0000100
36 "	"	.0800000 "	"	36.0000000
37 "	"	.0822223 "	"	37.0000350
38 "	"	.0844445 "	"	38.0000250
39 "	"	.0866667 "	"	39.0000150
40 "	"	.0888889 "	"	40.0000050
41 "	"	.0911112 "	"	41.0000400
42 "	"	.0933334 "	"	42.0000300
42½ "	"	.0944445 "	"	42.5000250
43 "	"	.0955556 "	"	43.0000200
43½ "	"	.0966667 "	"	43.5000150
44 "	"	.0977778 "	"	44.0000100
44½ "	"	.0988889 "	"	44.5000050
45 "	"	.100000 "	"	45.000000
45½ "	"	.101112 "	"	45.500400
46 "	"	.102223 "	"	46.000350
46¼ "	"	.102778 "	"	46.250100
46½ "	"	.103334 "	"	46.500300
46¾ "	"	.103889 "	"	46.750050
47 "	"	.104445 "	"	47.000250
47½ "	"	.105556 "	"	47.500200
47¾ "	"	.106112 "	"	47.750400
48 "	"	.106667 "	"	48.000150
49 "	"	.108889 "	"	49.000050
50 "	"	.111112 "	"	50.000400
51 "	"	.113334 "	"	51.000300
53 "	"	.117778 "	"	53.000100
84 "	"	.186667 "	"	84.000150
90 "	"	.200000 "	"	90.000000
94 "	"	.208889 "	"	94.000050
120 "	"	.266667 "	"	120.000150
162 "	"	.360000 "	"	162.000000
180 "	"	.400000 "	"	180.000000
189 "	"	.420000 "	"	189.000000
216 "	"	.480000 "	"	216.000000
225 "	"	.500000 "	"	225.000000
243 "	"	.540000 "	"	243.000000
300 "	"	.666667 "	"	300.000150
324 "	"	.720000 "	"	324.000000
360 "	"	.800000 "	"	360.000000

PART TEN

This part contains all the problems corresponding to the Five Orders, with and without the Pedestal, and the different kinds of Intercolumniation.

121.   Note: The drawings on Plate II illustrate the differences in the proportions of the following orders:

The Tuscan Order, Plate VII, proportioned according to Problem Five.

The Doric Order, Plate XIII, proportioned according to Problem Nine.

The Ionic Order, Plate XIX, proportioned according to Problem Fifteen.

The Corinthian Order, Plate XXV, proportioned according to Problem Twenty.

The Composite Order, Plate XXX, proportioned according to Problem Twenty-five.

Problem One

ENTASIS OF THE TUSCAN SHAFT

Metric System   English System

122.   Height of Order = 6.000 Meters × 629.92 = 3779.52 Sixteenths of an Inch.

Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column		Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
	Factor	Meters	Factor	Meters	Factor	Meters		Factor	Sixteenths	Factor	Sixteenths	Factor	Sixteenths
Sommoscapo							Sommoscapo						
Astragal	.00375940	.0226}*	.00657895	.0395	.0422933	.2538	Astragal	.00375940	14.21}*	.00657895	24.87	.0422933	159.85
Fillet	.00187970	.0113}	.00375940	.0226	.0394737	.2368	Fillet	.00187970	7.10}	.00375940	14.21	.0394737	149.19
Shaft	.542481	3.2549					Shaft	.542481	2050.32				
Upper Diam......	.0714286	.4286}*			.0357143	.2143	Upper Diam......	.0714286	269.97}*			.0357143	133.98
Lower Diam......	.0902256	.5414}			.0451128	.2707	Lower Diam......	.0902256	341.01}			.0451128	170.45
Fillet of Imoscapo	.00375940	.0226	.00563910	.0338	.0507519	.3045	Fillet of Imoscapo	.00375940	14.21	.00563910	21.31	.0507519	191.82

N. B.—For measurement, the fillet of the "imoscapo" belongs to the height of the base.

ENTASIS OF THE SHAFT

The shaft is divided into three equal parts, each of which is again divided into thirds, making a total of nine equal parts. (See Plate III).

The diameter of the lower third part of the shaft must first be determined, and upon a diameter drawn at the top of the lower third part, a semicircle is drawn. Then the upper diameter is determined and perpendiculars are dropped from its extremities, intersecting the semicircle below. The arcs thereby cut off at either side of the semicircle, are divided into six equal parts, and from each of these points a perpendicular is drawn and produced until it intersects with the corresponding one of the six divisions of the upper two thirds of the shaft. These points of intersection are then joined with a smooth curve which makes the correct entasis of the shaft.

The remaining measurements for the proportions of the complete order may be found on pages 78 and 79, articles 131 and 132.

Note:—By multiplying metric measurements by 629.92, we obtain the equivalent value in sixteenths of an inch.

By multiplying measurements in sixteenths of an inch by .0015875 we obtain the equivalent value in millimeters.

Problem Two

THE TUSCAN ORDER WITH THE PEDESTAL

(Metric Measurement)

123.   The height of this Order is 5.00 meters.   **PLATE IV**

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Meters	Factor	Meters	Factor	Meters
Order	Entablature	.157895	.7895	.0676692	.3383	.103384	.5169
						.0357143	.1786
	Column	.631579	3.1579			.0451128	.2256
	Pedestal	.210527	1.0526	.0150376	.0752	.0770677	.3853
			5.0000				
Entablature	Cornice	.0601504	.3008	.0676692	.3383	.103384	.5169
						.0357143	.1786
	Frieze	.0526316	.2632				
	Architrave	.0451128	.2256	.00751880	.0376	.0432231	.2161
			.7896				
Column	Capital	.0451128	.2256	.0206767	.1034	.0563910	.2820
	Shaft	.541354	2.7068				
	Base	.0451128	.2256	.0169173	.0846	.0620301	.3102
			3.1580				
Pedestal	Cap	.0225564	.1128	.0150376	.0752	.0770677	.3853
	Dado	.165414	.8271			.0620301	.3102
	Basement	.0225564	.1128	.0150376	.0752	.0770677	.3853
			1.0527				
			5.0003				
Diameters	Upper Diam.......	.0714286	.3571			.0357143	.1786
	Lower Diam.......	.0902256	.4511			.0451128	.2256

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Meters	Factor	Meters	Factor	Meters
Cornice				.0676692	.3383	.103384	.5169
	Ovolo	.0150376	.0752	.0526316	.2632	.0883459	.4417
	Reed	.00375940	.0188	.0545113	.2726	.0902656	.4511
	Fillet	.00187970	.0094	.0526316	.2632	.0883459	.4417
	Corona	.0225564	.1128	.0488722	.2244	.0845865	.4229
	Fillet	.00187970	.0094	.0187970	.0940	.0545113	.2726
				.0169173	.0846	.0526316	.2632
	Cyma Reversa......	.0150376	.0752	.00187970	.0094	.0375940	.1880
			.3008				
Frieze	Frieze	.0526316	.2632			.0357143	.1786
Architrave	Fillet	.00751880	.0376	.00751880	.0376	.0432231	.2161
	Fascia	.0375940	.1880			.0357143	.1786
			.2256				
Capital	Fillet	.00375940	.0188	.0206767	.1034	.0563910	.2820
	Abacus	.0112728	.0564	.0169173	.0846	.0526316	.2632
	Ovolo	.0112728	.0564	.0150376	.0752	.0507519	.2538
	Fillet	.00375940	.0188	.00375940	.0188	.0394737	.1974
	Frieze	.0150376	.0752			.0357143	.1786
			.2256				
Shaft	Astragal	.00375940	.0188}*	.00657895	.0329	.0422933	.2115
	Fillet	.00187970	.0094}	.00375940	.0188	.0394737	.1974
	Shaft	.541354	2.7068				
	Upper Diam.......	.0714286	.3571}*			.0357143	.1786
	Lower Diam.......	.0902256	.4511}			.0451128	.2256
			2.7068				
Base	Fillet	.00375940	.0188	.00657895	.0329	.0516918	.2585
	Torus	.0187970	.0940	.0169173	.0846	.0620301	.3102
	Plinth	.0225564	.1128	.0169173	.0846	.0620301	.3102
			.2256				
Cap	Fillet	.00751880	.0376	.0150376	.0752	.0770677	.3853
				.0131579	.0658	.0751880	.3759
	Cyma Reversa......	.0150376	.0752	.00187970	.0094	.0639098	.3196
			.1128				
Dado	Dado	.165414	.8271			.0620301	.3102
Basement	Fillet	.00375940	.0188	.00751880	.0376	.0695489	.3477
	Sub-base	.0187970	.0940	.0150376	.0752	.0770677	.3853
			.1128				

N. B.—Metric measurements ×629.92=sixteenths of an inch.

Problem Two

THE TUSCAN ORDER WITH THE PEDESTAL

(English Measurement)

124. The height of this Order is 5.00 m. ×629.92=3149.60 sixteenths of an inch. **PLATE IV**

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Order	Entablature ...	.157895	497.30	.0676692	213.13	.103384	325.62
						.0357143	112.49
	Column	.631579	1989.22			.0451128	142.09
	Pedestal	.210527	663.08	.0150376	47.36	.0770677	242.73
			3149.60				
Entablature	Cornice	.0601504	189.45	.0676692	213.13	.103384	325.62
						.0357143	112.49
	Frieze	.0526316	165.77			.0451128	142.09
	Architrave	.0451128	142.09	.00751880	23.68	.0432231	136.14
			497.31				
Column	Capital	.0451128	142.09	.0206767	65.12	.0563910	177.61
	Shaft	.541354	1705.05				
	Base	.0451128	142.09	.0169173	53.28	.0620301	195.37
			1989.23				
Pedestal	Cap	.0225564	71.04	.0150376	47.36	.0770677	242.73
						.0620301	195.37
	Dado	.165414	520.99				
	Basement	.0225564	71.04	.0150376	47.36	.0770677	242.73
			663.07				
			3149.61				
Diameters	Upper Diam...	.0714286	224.97			.0357143	112.49
	Lower Diam..	.0902256	284.17			.0451128	142.09

N. B.—English measurements ×.0015875=meters.

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Cornice				.0676692	213.13	.103384	325.62
	Ovolo	.0150376	47.36	.0526316	165.77	.0883459	278.25
	Reed	.00375940	11.84	.0545113	171.69	.0902256	284.17
	Fillet	.00187970	5.92	.0526316	165.77	.0883459	278.25
	Corona	.0225564	71.04	.0488722	153.93	.0845865	266.41
	Fillet	.00187970	5.92	.0187970	59.20	.0545113	171.69
				.0169173	53.28	.0526316	165.77
	Cyma Reversa.	.0150376	47.36	.00187970	5.92	.0375940	118.41
			189.44				
Frieze	Frieze	.0526316	165.77			.0357143	112.49
Architrave	Fillet	.00751880	23.68	.00751880	23.68	.0432231	136.14
	Fascia	.0375940	118.41			.0357143	112.49
			142.09				
Capital	Fillet	.00375940	11.84	.0206767	65.12	.0563910	177.61
	Abacus	.0112728	35.50	.0169173	53.28	.0526316	165.77
	Ovolo	.0112728	35.50	.0150376	47.36	.0507519	159.85
	Fillet	.00375940	11.84	.00375940	11.84	.0394737	124.33
	Frieze	.0150376	47.36			.0357143	112.49
			122.04				
Shaft	Astragal	.00375940	11.84}	.00657895	20.72	.0422933	133.21
	Fillet	.00187970	5.92}*	.00375940	11.84	.0394737	124.33
	Shaft	.541354	1705.05				
	Upper Diam...	.0714286	224.97}			.0357143	112.49
	Lower Diam..	.0902256	284.17}*			.0451128	142.09
			1705.05				
Base	Fillet	.00375940	11.84	.00657895	20.72	.0516918	162.81
	Torus	.0187970	59.20	.0169173	53.28	.0620301	195.37
	Plinth	.0225564	71.04	.0169173	53.28	.0620301	195.37
			142.08				
Cap	Fillet	.00751880	23.68	.0150376	47.36	.0770677	242.73
				.0131579	41.44	.0751880	236.81
	Cyma Reversa.	.0150376	47.36	.00187970	5.92	.0639098	201.29
			71.04				
Dado	Dado	.165414	520.99			.0620301	195.37
Basement	Fillet	.00375940	11.84	.00751880	23.68	.0695489	219.05
	Sub-base	.0187970	59.20	.0150376	47.36	.0770677	242.73
			71.04				
			3149.54				

Problem Three

SIMPLE INTERCOLUMNIATION WITH THE TUSCAN ORDER
(Without the Pedestal)

(Metric Measurement)

125.

The height of this Order is 3.00 meters.

PLATE V and VIII

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Meters	Factor	Meters	Factor	Meters
Order	Entablature	.200000	.6000	.0857143	.2571	.130953	.3929
	Column	.800000	2.4000			.0452381	.1357
			3.0000			.0541429	.1714
Entablature	Cornice	.0761905	.2286	.0857143	.2571	.130953	.3929
	Frieze	.0666667	.2000			.0452381	.1357
	Architrave	.0571429	.1714	.00952381	.0286	.0547620	.1643
			.6000				
Column	Capital	.0571429	.1714	.0261905	.0786	.0714286	.2143
						.0452381	.1357
	Shaft	.685715	2.0571			.0571429	.1714
	Base	.0571429	.1714	.0214286	.0643	.0785715	.2357
			2.3999				
			2.9999				

Tuscan Simple Intercolumniation

Height of the Order is 3 meters

Distance From Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening	
Factor	Meters	Factor	Meters	Factor	Meters	Factor	Meters
.380953	1.1429	.266667	.8000	.266667	.8000	.800000	2.4000

N. B.—Metric measurements ×629.92=Sixteenths of an inch.

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Meters	Factor	Meters	Factor	Meters
Cornice	Ovolo	.0190477	.0571	.0857143	.2571	.130953	.3929
	Reed	.00476191	.0143	.0666667	.2000	.111905	.3357
	Fillet	.00238096	.0071	.0690477	.2071	.114286	.3429
	Corona	.0285715	.0857	.0666667	.2000	.111905	.3357
	Fillet	.00238096	.0071	.0619048	.1857	.107143	.3214
				.0238096	.0714	.0690477	.2071
	Cyma Reversa....	.0190477	.0571	.0214286	.0643	.0666667	.2000
			.2284	.00238096	.0071	.0476191	.1429
Frieze	Frieze	.0666667	.2000			.0452381	.1357
Architrave	Fillet	.00952381	.0286	.00952381	.0286	.0547620	.1643
	Fascia	.0476191	.1429			.0452381	.1357
			.1715				
Capital	Fillet	.00476191	.0143	.0261905	.0786	.0714286	.2143
	Abacus	.0142858	.0429	.0214286	.0643	.0666667	.2000
	Ovolo	.0142858	.0429	.0190477	.0571	.0662858	.1929
	Fillet	.00476191	.0143	.00476191	.0143	.0500000	.1500
	Frieze	.0190477	.0571			.0452381	.1357
			.1715				
Shaft	Astragal	.00476191	.0143}	.00833334	.0250	.0535715	.1607
	Fillet	.00238096	.0071}*	.00476191	.0143	.0500000	.1500
	Shaft	.685715	2.0571				
	Upper Diam......	.0904762	.2714}			.0452381	.1357
	Lower Diam......	.114286	.3429}*			.0571429	.1714
			2.0571				
Base	Fillet	.00476191	.0143	.00833334	.0250	.0654762	.1965
	Torus	.0238096	.0714	.0214286	.0643	.0785715	.2357
	Plinth	.0285715	.0857	.0214286	.0643	.0785715	.2357
			.1714				
			2.9999				

Problem Three

SIMPLE INTERCOLUMNIATION WITH THE TUSCAN ORDER
(Without the Pedestal)

(English Measurement)

126.   The height of this Order is 3.00 m. × 629.92 = 1889.76 sixteenths of an inch.   **PLATE V and VIIIB**

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Order	Entablature ..	.200000	377.95	.0857143	161.98	.130953	247.47
						.0452381	85.49
	Column	.800000	1511.81			.0571429	107.99
			1889.76				
Entablature	Cornice	.0761905	143.98	.0857143	161.98	.130953	247.47
	Frieze	.0666667	125.98			.0452381	85.49
	Architrave	.0571429	107.99	.00952381	18.00	.0547620	103.49
			377.95				
Column	Capital	.0571429	107.99	.0261905	49.49	.0714286	134.98
						.0452381	85.49
	Shaft	.685715	1295.84			.0571429	107.99
	Base	.0571429	107.99	.0214286	40.49	.0785715	148.48
			1511.82				
			1889.77				

Tuscan Simple Intercolumniation

Height of Order is 1889.76 Sixteenths.

Distance From Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening	
Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
.380953	719.91	.266667	503.94	.266667	503.94	.800000	1511.81

N. B.—English measurements ×.0015875 = meters.

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Cornice				.0857143	161.98	.130953	247.47
	Ovolo	.0190477	36.00	.0666667	125.98	.111905	211.47
	Reed	.00476191	9.00	.0690477	130.48	.114286	215.97
	Fillet	.00238096	4.50	.0666667	125.98	.111905	211.47
	Corona	.0285715	53.99	.0619048	116.99	.107143	202.47
	Fillet	.00238096	4.50	.0238096	44.99	.0690477	130.48
				.0214286	40.49	.0666667	125.98
	Cyma Reversa	.0190477	36.00	.00238096	4.50	.0476191	89.99
			143.99				
Frieze	Frieze	.0666667	125.98			.0452381	85.49
Architrave	Fillet	.00952381	18.00	.00952381	18.00	.0547620	103.49
	Fascia	.0476191	89.99			.0452381	85.49
			107.99				
Capital	Fillet	.00476191	9.00	.0261905	49.49	.0714286	134.98
	Abacus	.0142858	27.00	.0214286	40.49	.0666667	125.98
	Ovolo	.0142858	27.00	.0190477	36.00	.0642858	121.48
	Fillet	.00476191	9.00	.00476191	9.00	.0500000	94.49
	Frieze	.0190477	36.00			.0452381	85.49
			108.00				
Shaft	Astragal	.00476191	9.00 }*	.00833334	15.75	.0535715	101.58
	Fillet	.00238096	4.50 }	.00476191	9.00	.0500000	94.49
	Shaft	.685715	1295.84				
	Upper Diam...	.0904762	171.00 }*			.0452381	85.49
	Lower Diam..	.114286	215.57 }			.0571429	107.99
			1295.84				
Base	Fillet	.00476191	9.00	.00833334	15.75	.0654762	123.73
	Torus	.0238096	44.99	.0214286	40.49	.0785715	148.48
	Plinth	.0285715	53.99	.0214286	40.49	.0785715	148.48
			107.98				
			1889.78				

Problem Four

ARCADE INTERCOLUMNIATION WITH THE TUSCAN ORDER WITHOUT THE PEDESTAL

(Metric Measurement)

127.　　　　The height of this Order is 2.3684 meters.　　　　**PLATE VI**

Name of Member	Height Factor	Height Meters	Projection From Face of Column Factor	Projection From Face of Column Meters	Projection From Axis of Column Factor	Projection From Axis of Column Meters
Order						
Entablature	.200000	.4737	.0857143	.2030	.130953	.3101
Column	.800000	1.8947				
		2.3684				
Entablature						
Cornice	.0761905	.1805	.0857143	.2030	.130953	.3101
Frieze	.0666667	.1579			.0452381	.1071
Architrave	.0571429	.1353	.00952381	.0226	.0547620	.1279
		.4737				
Column						
Capital	.0571429	.1353	.0261905	.0620	.0714284	.1692
Shaft	.685715	1.6241				
Base	.0571429	.1353	.0214286	.0508	.0785715	.1861
		1.8947				
		2.3684				

Arcade Intercolumniation

Height of the Order is 2.3684 meters

Distance From Axis to Axis Factor	Meters	Distance Between Columns Factor	Meters	Width of Opening Factor	Meters	Height of Opening Factor	Meters	Height of Impost Factor	Meters
.542858	1.2857	.428572	1.0150	.371429	.8797	.742858	1.7594	.557143	1.3195
*.571429	1.3533	.457143	1.0826						

(*Factors for increased width of "alette".)

Impost of the Arcade

Height Factor	Meters	Projection From Face of Wall Factor	Meters
.0571429	.1353	.00952381	.0226

N. B.—Metric measurements × 629.92 = Sixteenths of an inch.

Name of Moulding	Height Factor	Height Meters	Projection From Face of Column Factor	Projection From Face of Column Meters	Projection From Axis of Column Factor	Projection From Axis of Column Meters
Cornice						
			.0857143	.2030	.130953	.3101
Ovolo	.0190477	.0451	.0666667	.1579	.111905	.2650
Reed	.00476191	.0113	.0690477	.1635	.114286	.2707
Fillet	.00238096	.0056	.0666667	.1579	.111905	.2650
Corona	.0285715	.0677	.0619048	.1466	.107143	.2538
Fillet	.00238096	.0056	.0238096	.0564	.0690477	.1635
			.0214286	.0508	.0666667	.1579
Cyma Reversa....	.0190477	.0451	.00238096	.0056	.0476191	.1128
		.1804				
Frieze						
Frieze	.0666667	.1579			.0452381	.1071
Architrave						
Fillet	.00952381	.0226	.00952381	.0226	.0547620	.1279
Fascia	.0476191	.1128			.0452381	.1071
		.1354				
Capital						
Fillet	.00476191	.0113	.0261905	.0620	.0714286	.1692
Abacus	.0142858	.0338	.0214286	.0508	.0666667	.1579
Ovolo	.0142858	.0338	.0190477	.0451	.0642858	.1523
Fillet	.00476191	.0113	.00476191	.0113	.0500000	.1184
Frieze	.0190477	.0451			.0452381	.1071
		.1353				
Shaft						
Astragal	.00476191}*	.0113	.00833334	.0197	.0535715	.1269
Fillet	.00238096}	.0056	.00476191	.0113	.0500000	.1184
Shaft	.685715	1.6240				
Upper Diam.......	.0904762 }*	.2143			.0452381	.1071
Lower Diam......	.114286 }	.2707			.0571429	.1353
		1.6240				
Base						
Fillet	.00476191	.0113	.00833334	.0197	.0654762	.1551
Torus	.0238096	.0564	.0214286	.0508	.0785715	.1861
Plinth	.0285715	.0677	.0214286	.0508	.0785715	.1861
		.1354				
		2.3684				

Problem Four

ARCADE INTERCOLUMNIATION WITH THE TUSCAN ORDER WITHOUT THE PEDESTAL

(English Measurement)

128. The height of this Order is 2.3684 m. × 629.92 = 1491.90 Sixteenths. **PLATE VI**

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Order	Entablature ...	.200000	298.38	.0857143	127.87	.130953	195.37
	Column	.800000	1193.52				
			1491.90				
Entablature	Cornice	.0761905	113.67	.0857143	127.87	.130953	195.37
	Frieze	.0666667	99.46			.0452381	67.49
	Architrave ...	.0571429	85.25	.00952381	14.21	.0547620	81.70
			298.38				
Column	Capital	.0571429	85.25	.0261905	39.07	.0714286	106.56
	Shaft	.685715	1023.02				
	Base	.0571429	85.25	.0214286	31.97	.0785715	117.22
			1193.52				
			1491.90				

Arcade Intercolumniation

Height of the Order is 1491.90 sixteenths.

Distance From Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening		Height of Impost	
Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
.542858	809.89	.428572	639.39	.371429	554.13	.742858	1108.27	.557143	831.20
*.571429	852.51	.457143	681.99						

*Factors for increased width of 'alette."

Impost of the Arcade

Height		Projection From Face of Wall	
.0571429	85.25	.00952381	14.21

N. B.—English measurements × .0015875 = meters.

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Cornice				.0857143	127.87	.130953	195.37
	Ovolo	.0190477	28.42	.0666667	99.46	.111905	166.95
	Reed	.00476191	7.10	.0690477	103.01	.114286	170.50
	Fillet	.00238096	3.55	.0666667	99.46	.111905	166.95
	Corona	.0285715	42.63	.0619048	92.36	.107143	159.85
	Fillet	.00238096	3.55	.0238096	35.52	.0690477	103.01
				.0214286	31.97	.0666667	99.46
	Cyma Reversa	.0190477	28.42	.00238096	3.55	.0476191	71.04
			113.67				
Frieze	Frieze	.0666667	99.46			.0452381	67.49
Architrave	Fillet	.00952381	14.21	.00952381	14.21	.0547620	81.70
	Fascia	.0476191	71.04			.0452381	67.49
			85.25				
Capital	Fillet	.00476191	7.10	.0261905	39.07	.0714286	106.56
	Abacus	.0142858	21.31	.0214286	31.97	.0666667	99.46
	Ovolo	.0142858	21.31	.0190477	28.42	.0642858	95.91
	Fillet	.00476191	7.10	.00476191	7.10	.0500000	74.59
	Frieze	.0190477	28.42			.0452381	67.49
			85.24				
Shaft	Astragal	.00476191	7.10 }*	.00833334	12.43	.0535715	79.92
	Fillet	.00238096	3.55 }	.00476191	7.10	.0500000	74.59
	Shaft	.685715	1023.02				
	Upper Diam...	.0904762	134.98 }*			.0452381	67.49
	Lower Diam..	.114286	170.50 }			.0571429	85.25
			1023.02				
Base	Fillet	.00476191	7.10	.00833334	12.43	.0654762	97.68
	Torus	.0238096	35.52	.0214286	31.97	.0785715	117.22
	Plinth	.0285715	42.63	.0214286	31.97	.0785715	117.22
			85.25				
			1491.89				

Problem Five

ARCADE INTERCOLUMNIATION WITH THE TUSCAN ORDER WITH THE PEDESTAL

(Metric Measurement)

129.   The height of this Order is 3.00 meters.   **PLATE VII**

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Meters	Factor	Meters	Factor	Meters
Order	Entablature	.157895	.4737	.0676692	.2030	.103384	.3102
	Column	.631579	1.8947				
	Pedestal	.210527	.6316	.0150376	.0451	.0770677	.2312
			3.0000				
Entablature	Cornice	.0601504	.1805	.0676692	.2030	.103384	.3102
	Frieze	.0526316	.1579			.0357143	.1071
	Architrave	.0451128	.1353	.00751880	.0226	.0432231	.1297
			.4737				
Column	Capital	.0451128	.1353	.0206767	.0620	.0563910	.1692
	Shaft	.541354	1.6241				
	Base	.0451128	.1353	.0169173	.0508	.0620301	.1861
			1.8947				
Pedestal	Cap	.0225564	.0677	.0150376	.0451	.0770677	.2312
	Dado	.165414	.4962			.0620301	.1861
	Basement	.0225564	.0677	.0150376	.0451	.0770677	.2312
			.6316				
			3.0000				

Arcade Intercolumniation

Height of the Order is 3.000 meters.

Distance From Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening		Height of Impost	
Factor	Meters	Factor	Meters	Factor	Meters	Factor	Meters	Factor	Meters
.575188	1.7256	.484963	1.4549	.394737	1.1842	.789474	2.3684	.592106	1.7763

Impost of the Arcade

Name of Moulding	Height		Projection From Face of Wall	
	Factor	Meters	Factor	Meters
Fillet	.00657895	.0197	.0150376	.0451
Fascia[2]	.0272557	.0818	.00751880	.0226
Fascia[1]	.0112782	.0338	.00375940	.0113
		.1353		

N. B.—Metric measurements × 629.92 = sixteenths of an inch.

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Meters	Factor	Meters	Factor	Meters
Cornice				.0676692	.2030	.103384	.3102
	Ovolo	.0150376	.0451	.0526316	.1579	.0883459	.2650
	Reed	.00375940	.0113	.0545113	.1635	.0902256	.2707
	Fillet	.00187970	.0056	.0526316	.1579	.0883459	.2650
	Corona	.0225564	.0677	.0488722	.1466	.0845865	.2538
	Fillet	.00187970	.0056	.0187970	.0564	.0545113	.1635
				.0169173	.0508	.0526316	.1579
	Cyma Reversa....	.0150376	.0451	.00187970	.0056	.0375940	.1128
			.1804				
Frieze	Frieze	.0526316	.1579			.0357143	.1071
Architrave	Fillet	.00751880	.0226	.00751880	.0226	.0432231	.1279
	Fascia	.0375940	.1128			.0357143	.1071
			.1354				
Capital	Fillet	.00375940	.0113	.0206767	.0620	.0563910	.1692
	Abacus	.0112782	.0338	.0169173	.0508	.0526316	.1579
	Ovolo	.0112782	.0338	.0150376	.0451	.0507519	.1523
	Fillet	.00375940	.0113	.00375940	.0113	.0394737	.1184
	Frieze	.0150376	.0451			.0357143	.1071
			.1353				
Shaft	Astragal	.00375940	.0113}*	.00657895	.0197	.0422933	.1269
	Fillet	.00187970	.0056}	.00375940	.0113	.0394737	.1184
	Shaft	.541354	1.6241				
	Upper Diam.......	.0714286	.2143}*			.0357143	.1071
	Lower Diam......	.0902256	.2707}			.0451128	.1353
			1.6241				
Base	Fillet	.00375940	.0113	.00657895	.0197	.0516918	.1551
	Torus	.0187970	.0564	.0169173	.0508	.0620301	.1861
	Plinth	.0225564	.0677	.0169173	.0508	.0620301	.1861
			.1354				
Cap	Fillet	.00751880	.0226	.0150376	.0451	.0770677	.2312
				.0131579	.0395	.0751880	.2256
	Cyma Reversa....	.0150376	.0451	.00187970	.0056	.0639098	.1917
			.0677				
Dado	Dado	.165414	.4962			.0620301	.1861
Basement	Fillet	.00375940	.0113	.00751880	.0226	.0695489	.2086
	Sub-base	.0187970	.0564	.0150376	.0456	.0770677	.2312
			.0677				
			3.0006				

Problem Five

ARCADE INTERCOLUMNIATION WITH THE TUSCAN ORDER WITH THE PEDESTAL

(English Measurement)

130. The height of this Order is 3.000 m. × 629.92 = 1889.76 sixteenths. **PLATE VII**

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	teenths Six-
Order	Entablature	.157895	298.38	.0676692	127.88	.103384	195.37
	Column	.631579	1193.53				
	Pedestal	.210527	397.85	.0150376	28.42	.0770677	145.64
			1889.76				
Entablature	Cornice	.0601504	113.67	.0676692	127.88	.103384	195.37
	Frieze	.0526316	99.46			.0357143	67.49
	Architrave	.0451128	85.25	.00751880	14.21	.0432231	81.68
			298.38				
Column	Capital	.0451128	85.25	.0206767	39.07	.0563910	106.57
	Shaft	.541354	1023.02				
	Base	.0451128	85.25	.0169173	31.97	.0620301	117.22
			1193.52				
Pedestal	Cap	.0225564	42.63	.0150376	28.42	.0770677	145.64
	Dado	.165414	312.59			.0620301	117.22
	Basement	.0225564	42.63	.0150376	28.42	.0770677	145.64
			397.85				
			1889.75				

Arcade Intercolumniation

Height of the Order is 1889.76 sixteenths

Distance From Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening		Height of Impost	
Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
.575188	1086.97	.484963	916.46	.394737	745.96	.789474	1491.92	.592106	1118.94

Impost of Arcade

Name of Moulding	Height		Projection From Face of Wall	
	Factor	Six-teenths	Factor	Six-teenths
Fillet	.00657895	12.43	.0150376	28.42
Fascia²	.0272557	51.51	.00751880	14.21
Fascia¹	.0112782	21.31	.00375940	7.10
		85.25		

N. B.—English measurements ×.0015875=Meters.

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Cornice	Ovolo	.0150376	28.42	.0676692	127.88	.103384	195.37
	Reed	.00375940	7.10	.0526316	99.46	.0883459	166.95
	Fillet	.00187970	3.55	.0545113	103.01	.0902256	170.50
	Corona	.0225564	42.63	.0526316	99.46	.0883459	166.95
	Fillet	.00187970	3.55	.0488722	92.36	.0845865	159.84
	Cyma Reversa...	.0150376	28.42	.0187970	35.52	.0545113	103.01
			113.67	.0169173	31.97	.0526316	99.46
				.00187970	3.55	.0375940	71.04
Frieze	Frieze	.0526316	99.46			.0357143	67.49
Architrave	Fillet	.00751880	14.21	.00751880	14.21	.0432231	81.68
	Fascia	.0375940	71.04			.0357143	67.49
			85.25				
Capital	Fillet	.00375940	7.10	.0206767	39.07	.0563910	106.57
	Abacus	.0112782	21.31	.0169173	31.97	.0526316	99.46
	Ovolo	.0112782	21.31	.0150376	28.42	.0507519	95.91
	Fillet	.00375940	7.10	.00375940	7.10	.0394737	74.60
	Frieze	.0150376	28.42			.0357143	67.49
			85.24				
Shaft	Astragal	.00375940	7.10}	.00657895	12.43	.0422933	79.92
	Fillet	.00187970	3.55∫*	.00375940	7.10	.0394737	74.60
	Shaft	.541354	1023.02				
	Upper Diam.....	.0714286	134.98}			.0357143	67.49
	Lower Diam.....	.0902256	170.50∫*			.0451128	85.25
			1023.02				
Base	Fillet	.00375940	7.10	.00657895	12.43	.0516918	97.69
	Torus	.0187970	35.52	.0169173	31.97	.0620301	117.22
	Plinth	.00225564	42.63	.0169173	31.97	.0620301	117.22
			85.25				
Cap	Fillet	.00751880	14.21	.0150376	28.42	.0770677	145.64
				.0131579	24.87	.0751880	142.09
	Cyma Reversa...	.0150376	28.42	.00187970	3.55	.0639098	120.77
			42.63				
Dado	Dado	.165414	312.59			.0620301	117.22
Basement	Fillet	.00375940	7.10	.00751880	14.21	.0695489	131.43
	Sub-base	.0187970	35.52	.0150376	28.42	.0770677	145.64
			42.62				
			1889.73				

PART ELEVEN

Problem Six

THE DORIC ORDER WITH THE PEDESTAL (With Mutules)

(Metric Measurement)

131.   The height of this Order is 5.00 meters.   **PLATE IX**

	Name of Member	Height Factor	Height Meters	Projection From Face of Column Factor	Projection From Face of Column Meters	Projection From Axis of Column Factor	Projection From Axis of Column Meters
Order	Entablature	.157895	.7895	.0789474	.3947	.111843	.5592
	Column	.631579	3.1579			.0394737	.1974
	Pedestal	.210527	1.0526	.0197369	.0987	.0756579	.3783
			5.000				
Entablature	Cornice	.0592106	.2961	.0789474	.3947	.111843	.5592
	Frieze	.0592106	.2961			.0328948	.1645
	Architrave	.0394737	.1974	.00657895	.0329	.0394737	.1974
			.7896				
Column	Capital	.0394737	.1974	.0180922	.0905	.0509869	.2549
	Shaft	.552632	2.7632			.0394737	.1974
	Base	.0394737	.1974	.0164474	.0822	.0559211	.2796
			3.1580				
Pedestal	Cap	.0197369	.0987	.0197369	.0987	.0756579	.3783
	Dado	.157895	.7895			.0559211	.2796
	Basement	.0328948	.1645	.0148027	.0740	.0707237	.3536
			1.0527				
			5.0003				

(The factor for the Triglyph is .0394737.)

N. B.—Metric measurements ✕629.92=Sixteenths of an inch.

	Name of Moulding	Height Factor	Height Meters	Projection From Face of Column Factor	Projection From Face of Column Meters	Projection From Axis of Column Factor	Projection From Axis of Column Meters
Cornice	Fillet	.00328948	.0165	.0789474	.3947	.111843	.5592
	Cyma Recta	.00986843	.0493				
	Fillet	.00164474	.0082	.0690790	.3454	.101974	.5099
				.0682566	.3413	.101152	.5058
	Cyma Reversa	.00328948	.0165	.0649672	.3248	.0978619	.4893
	Corona	.0115132	.0576	.0641448	.3207	.0970395	.4852
				.0625000	.3125	.0953948	.4770
	Cyma Reversa	.00328948	.0165	.0600329	.3002	.0929277	.4646
	Mutule	.00986843	.0493	.0592106	.2961	.0921053	.4605
	Fascia of Mutule						
	Fillet	.00164474	.0082	.0131579	.0658	.0460527	.2303
	Ovolo	.00657895	.0329	.0115132	.0576	.0444079	.2220
	Fillet	.00164474	.0082	.00493422	.0247	.0378290	.1892
	Capital of the Triglyph	.00657895	.0329	.00246711	.0123	.0353619	.1768
			.2961				
Frieze	Frieze	.0592106	.2961			.0328948	.1645
Architrave	Fillet	.00657895	.0329	.00657895	.0329	.0394737	.1974
	Fascia²	.0197369	.0987	.00164474	.0082	.0345395	.1727
	Fascia¹	.0131579	.0658			.0328948	.1645
			.1974				
Capital	Fillet	.00164474	.0082	.0180922	.0905	.0509869	.2549
				.0172698	.0864	.0501645	.2508
	Cyma Reversa	.00328948	.0165	.0139803	.0699	.0468750	.2344
	Abacus	.00822369	.0411	.0131579	.0658	.0460527	.2303
				.0123356	.0617	.0452303	.2262
	Ovolo	.00822369	.0411	.00411185	.0206	.0370066	.1850
	Astragal	.00328948	.0165	.00493422	.0247	.0378290	.1892
	Fillet	.00164474	.0082	.00246711	.0123	.0353619	.1768
	Collarino	.0131579	.0658			.0328948	.1645
			.1974				
Shaft	Astragal	.00328948	.0165}	.00575658	.0288	.0386514	.1933
	Fillet	.00164474	.0082}*	.00328948	.0165	.0361843	.1809
	Shaft	.552632	2.7632				
	Upper Diam	.0657895	.3290}			.0328948	.1645
	Lower Diam	.0789474	.3947}*			.0394737	.1974
			2.7632				
Base	Fillet	.00328948	.0165	.00575658	.0288	.0452303	.2262
	Reed	.00328948	.0165	.00822369	.0411	.0476974	.2385
	Torus	.0131579	.0658	.0164474	.0822	.0559211	.2796
	Plinth	.0197369	.0987	.0164474	.0822	.0559211	.2796
			.1975				
Cap	Fillet	.00164474	.0082	.0197369	.0987	.0756579	.3783
	Ovolo	.00328948	.0165	.0180922	.0905	.0740132	.3701
	Fillet	.00164474	.0082	.0148027	.0740	.0707237	.3536
	Corona	.00822369	.0411	.0131579	.0658	.0690790	.3454
				.00493422	.0247	.0608553	.3043
	Cyma Reversa	.00493422	.0247	.00164474	.0082	.0575658	.2878
			.0987				
Dado	Dado	.157895	.7895			.0559211	.2796
Basement	Fillet	.00164474	.0082	.00493422	.0247	.0608553	.3043
	Reed	.00328948	.0165	.00657895	.0329	.0625000	.3125
				.00740132	.0370	.0633224	.3166
	Cyma Reversa	.00657895	.0329	.0123356	.0617	.0682566	.3413
	Plinth	.00822369	.0411	.0131579	.0658	.0690790	.3454
	Sub-base	.0131579	.0658	.0148027	.0740	.0707237	.3536
			.1645				
			5.0004				

Problem Six

THE DORIC ORDER WITH THE PEDESTAL (With Mutules)

(English Measurement)

132. The height of this order is 5.000 m. × 629.92 = 3149.60 sixteenths. **PLATE IX**

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Order	Entablature ..	.157895	497.30	.0789474	248.65	.111843	352.26
	Column	.631579	1989.22			.0394737	124.33
	Pedestal	.210527	663.08	.0197369	62.16	.0756579	238.29
			3149.60				
Entablature	Cornice	.0592106	186.49	.0789474	248.65	.111843	352.26
	Frieze	.0592106	186.49			.0328948	103.61
	Architrave ...	.0394737	124.33	.00657895	20.72	.0394737	124.33
			497.31				
Column	Capital	.0394737	124.33	.0180922	56.98	.0509869	160.59
	Shaft	.552632	1740.57			.0394737	124.33
	Base	.0394737	124.33	.0164474	51.82	.0559211	176.13
			1989.23				
Pedestal	Cap	.0197369	62.16	.0197369	62.16	.0756579	238.29
	Dado	.157895	497.30			.0559211	176.13
	Basement	.0328948	103.61	.0148027	46.62	.0707237	222.75
			663.07				
			3149.61				

(The factor for the Triglyph is .0394737).

N. B.—English measurements × .0015875 = meters.

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Capital	Fillet	.00328948	10.36	.0789474	248.65	.111843	352.26
	Cyma Recta...	.00986843	31.08				
	Fillet	.00164474	5.18	.0690790	217.57	.101974	321.18
				.0682566	214.98	.101152	318.59
	Cyma Reversa	.00328948	10.36	.0649672	204.62	.0978619	308.23
	Corona	.0115132	36.26	.0641448	202.03	.0970395	305.64
				.0625000	196.85	.0953948	300.46
	Cyma Reversa	.00328948	10.36	.0600329	189.08	.0929277	292.69
	Mutule	.00986843	31.08	.0592106	186.49	.0921053	290.09
	Fascia of Mutule						
	Fillet	.00164474	5.18	.0131579	41.44	.0460527	145.05
	Ovolo	.00657895	20.72	.0115132	36.26	.0444079	139.87
	Fillet	.00164474	5.18	.00493422	15.54	.0378290	119.15
	Capital of the Triglyph	.00657895	20.72	.00246711	7.77	.0353619	111.38
			186.48				
Frieze	Frieze	.0592106	186.49			.0328948	103.61
Architrave	Fillet	.00657895	20.72	.00657895	20.72	.0394737	124.33
	Fascia[2]	.0197369	62.16	.00164474	5.18	.0345395	108.79
	Fascia[1]	.0131579	41.44			.0328948	103.61
			124.32				
Capital	Fillet	.00164474	5.18	.0180922	56.98	.0509869	160.59
				.0172698	54.39	.0501645	158.00
	Cyma Reversa	.00328948	10.36	.0139803	44.03	.0468750	147.64
	Abacus	.00822369	25.90	.0131579	41.44	.0460527	145.05
				.0123356	38.85	.0452303	142.45
	Ovolo	.00822369	25.90	.00411185	12.95	.0370066	116.55
	Astragal	.00328948	10.36	.00493422	15.54	.0378290	119.15
	Fillet	.00164474	5.18	.00246711	7.77	.0353619	111.38
	Collarina	.0131579	41.44			.0328948	103.61
			124.32				
Shaft	Astragal	.00328948	10.36⟩*	.00575658	18.13	.0386514	121.73
	Fillet	.00164474	5.18⟩	.00328948	10.36	.0361843	113.97
	Shaft	.552632	1740.57				
	Upper Diam...	.0657895	207.21			.0328948	103.61
	Lower Diam..	.0789474	248.65⟩*			.0394737	124.33
			1740.57⟩				
Base	Fillet	.00328948	10.36	.00575658	18.13	.0452303	142.45
	Reed	.00328948	10.36	.00822369	25.90	.0476974	150.23
	Torus	.0131579	41.44	.0164474	51.82	.0559211	176.13
	Plinth	.0197369	62.16	.0164474	51.82	.0559211	176.13
			124.32				
Cap	Fillet	.00164474	5.18	.0197369	62.16	.0756579	238.29
	Ovolo	.00328948	10.36	.0180922	56.98	.0740132	233.11
	Fillet	.00164474	5.18	.0148027	46.62	.0707237	222.75
	Corona	.00822369	25.90	.0131579	41.44	.0690790	217.57
				.00493422	15.54	.0608553	191.70
	Cyma Reversa	.00493422	15.54	.00164474	5.18	.0575658	181.31
			62.16				
Dado	Dado	.157895	497.30			.0559211	176.13
Basement	Fillet	.00164474	5.18	.00493422	15.54	.0608553	191.70
	Reed	.00328948	10.36	.00657895	20.72	.0625000	196.85
				.00740132	23.31	.0633224	199.44
	Cyma Reversa	.00657895	20.72	.0123356	38.85	.0682566	214.98
	Plinth	.00822369	25.90	.0131579	41.44	.0690790	217.57
	Sub-base	.0131579	41.44	.0148027	46.62	.0707237	222.75
			103.60				
			3149.56				

Problem Six B

THE DORIC ORDER WITH THE PEDESTAL, (With Dentils)

(Metric Measurement)

131 and 132-B. The height of this Order is 5.000 meters.

(English Measurement)

5.000 m. × 629.92 = 3149.60 sixteenths. **PLATE IX**

(Metric Measurement)

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Meters	Factor	Meters	Factor	Meters
Cornice	Fillet	.00328948	.0165	.0789474	.3947	.111843	.5592
	Cavetto	.00986843	.0493	.0690790	.3454	.101974	.5099
	Fillet	.00164474	.0082	.0674343	.3372	.100329	.5016
				.0657895	.3290	.0986843	.4934
	Cyma Reversa.	.00328948	.0165	.0625000	.3125	.0953948	.4770
	Corona	.0131579	.0658	.0608553	.3043	.0937500	.4680
	Fillet	.00164474	.0082	.0230264	.1151	.0559211	.2796
	Fillet	.00164474	.0082	.0213816	.1069	.0542764	.2714
	Dentils	.00986843	.0493	.0197369	.0987	.0526316	.2632
	Fillet	.00164474	.0082	.0131579	.0658	.0460527	.2303
				.0115132	.0576	.0444079	.2220
	Cyma Reversa..	.00657895	.0329	.00493422	.0247	.0378290	.1992
	Capital of the Triglyph	.00657895	.0329	.00328948	.0165	.0361843	.1809
			.2960				
Frieze	Frieze	.0592106	.2961			.0328948	.1645
Architrave	Fillet	.00657895	.0329	.00493422	.0247	.0378290	.1892
	Fascia	.0328948	.1645			.0328948	.1645
			.1974				
Capital	Fillet	.00164474	.0082	.0180922	.0905	.0509869	.2549
				.0172698	.0864	.0501645	.2508
	Cyma Reversa.	.00328948	.0165	.0139803	.0699	.0468750	.2344
	Abacus	.00822369	.0411	.0131579	.0658	.0460527	.2303
	Ovolo	.00822369	.0411	.0123356	.0617	.0452303	.2262
	Fillet	.00164474	.0082	.00411185	.0206	.0370066	.1850
	Fillet	.00164474	.0082	.00328948	.0165	.0361843	.1809
	Fillet	.00164474	.0082	.00246711	.0123	.0353619	.1768
	Collarino	.0131579	.0658			.0328948	.1645
			.1973				

(English Measurement)

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Cornice	Fillet	.00328948	10.36	.0789474	248.65	.111843	352.26
	Cavetto	.00986843	31.08	.0690790	217.57	.101974	321.18
	Fillet ......:...	.00164474	5.18	.0674343	212.39	.100339	316.00
				.0657895	207.21	.0986843	310.85
	Cyma Reversa..	.00328948	10.36	.0625000	196.85	.0953948	300.46
	Corona	.0131579	41.44	.0608553	191.70	.0937500	295.28
	Fillet	.00164474	5.18	.0230264	72.53	.0559211	176.13
	Fillet	.00164474	5.18	.0213816	67.34	.0542764	170.95
	Dentils	.00986843	31.08	.0197369	62.16	.0526316	165.78
	Fillet	.00164474	5.18	.0131579	41.44	.0460527	145.05
				.0115132	36.26	.0444079	139.87
	Cyma Reversa..	.00657895	20.72	.00493422	15.54	.0378290	119.15
	Capital of the Triglyph	.00657895	20.72	.00328948	10.36	.0361843	113.97
			186.48				
Frieze	Frieze	.0592106	186.49			.0328948	103.61
Architrave	Fillet	.00657895	20.72	.00493422	15.54	.0378290	119.15
	Fascia	.0328948	103.61			.0328948	103.61
			124.33				
Capital	Fillet	.00164474	5.18	.0180922	56.98	.0509869	160.59
				.0172698	54.39	.0501645	158.00
	Cyma Reversa.	.00328948	10.36	.0139803	44.03	.0468750	147.64
	Abacus	.00822369	25.90	.0131579	41.44	.0460527	145.05
	Ovolo	.00822369	25.90	.0123356	38.85	.0452303	142.45
	Fillet	.00164474	5.18	.00411185	12.95	.0370066	116.55
	Fillet	.00164474	5.18	.00328948	10.36	.0361843	113.97
	Fillet	.00164474	5.18	.00246711	7.77	.0353619	111.38
	Collarino	.0131579	41.44			.0328948	103.61
			124.32				

The remaining measurements for the proportions of the complete order may be found on pages 78 and 79, articles 131 and 132.

Problem Seven

SIMPLE INTERCOLUMNIATION WITH THE DORIC ORDER (With Mutules)

(without the Pedestal)

(Metric Measurement)

133.   The height of this Order is 3.000 meters.   **PLATE XI**

Name of Member	Height		Projection from Face of Clumn		Projection from Axis of Column	
	Factor	Meters	Factor	Meters	Factor	Meters
Order Entablature	.200000	.6000	.100000	.3000	.141667	.4250
Column	.800000	2.4000			.0500000	.1500
		3.0000				
Entablature Cornice	.0750000	.2250	.100000	.3000	.141667	.4250
Frieze	.0750000	.2250			.0416667	.1250
Architrave	.0500000	.1500	.00833334	.0250	.0500000	.1500
		.6000				
Column Capital	.0500000	.1500	.0229167	.0688	.0645834	.1938
Shaft	.700000	2.1000			.0500000	.1500
Base	.0500000	.1500	.0208334	.0625	.0708334	.2125
		2.4000				
		3.0000				

Simple Doric Intercolumniation

Height of the Order is 3.000 meters.

Distance From Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening	
Factor	Meters	Factor	Meters	Factor	Meters	Factor	Meters
.375000	1.1250	.275000	.8250	.275000	.8250	.800000	2.4000

N. B.—Metric measurements ×629.92=Sixteenths of an inch.

Name of Moulding	Height		Projection from Face of Clumn		Projection from Axis of Column	
	Factor	Meters	Factor	Meters	Factor	Meters
Cornice Fillet	.00416667	.0125	.100000	.3000	.141667	.4250
Cyma Recta.......	.0125000	.0375				
Fillet	.00208334	.0063	.0875000	.2625	.129167	.3875
			.0864584	.2594	.128125	.3843
Cyma Reversa.....	.00416667	.0125	.0822917	.2469	.123959	.3719
Corona	.0145834	.0438	.0812500	.2438	.122917	.3688
			.0791667	.2375	.120834	.3625
Cyma Reversa....	.00416667	.0125	.0760417	.2281	.117709	.3531
Mutule	.0125000	.0375	.0750000	.2250	.116667	.3500
Fillet	.00208334	.0063	.0166667	.0500	.0583334	.1750
Ovolo	.00833334	.0250	.0145834	.0438	.0562500	.1688
Fillet	.00208334	.0063	.00625000	.0188	.0479167	.1438
Capital of Triglyph	.00838334	.0250	.00312500	.0094	.0447917	.1344
		.2252				
Frieze Frieze	.0750000	.2250			.0416667	.1250
Architrave Fillet	.00833334	.0250	.00833334	.0250	.0500000	.1500
Fascia²	.0250000	.0750	.00208334	.0063	.0437500	.1313
Fascia¹	.0166667	.0500			.0416667	.1250
		.1500				
Capital Fillet	.00208334	.0063	.0229167	.0688	.0645834	.1938
			.0218750	.0656	.0635417	.1906
Cyma Reversa.....	.00416667	.0125	.0177084	.0531	.0593750	.1781
Abacus	.0104167	.0313	.0166667	.0500	.0583334	.1750
			.0156250	.0469	.0572917	.1719
Ovolo	.0104167	.0313	.00520843	.0156	.0468750	.1406
Astragal	.00416667	.0125	.00625000	.0188	.0479167	.1438
Fillet	.00208334	.0063	.00312500	.0094	.0447917	.1344
Collarino	.0166667	.0500			.0416667	.1250
		.1502				
Shaft Astragal	.00416667	.0125 ⎱	.00729167	.0219	.0489584	.1469
Fillet	.00208334	.0063 ⎰*	.00416667	.0125	.0458334	.1375
Shaft	.700000	2.1000				
Upper Diam.......	.0833334	.2500 ⎱			.0416667	.1250
Lower Diam.......	.100000	.3000 ⎰*			.0500000	.1500
		2.1000				
Base Fillet	.00416667	.0125	.00729167	.0219	.0572917	.1719
Reed	.00416667	.0125	.0104167	.0313	.0604167	.1813
Torus	.0166667	.0500	.0208334	.0625	.0708334	.2125
Plinth	.0250000	.0750	.0208334	.0625	.0708334	.2125
		.1500				
		3.0006				

The factor for the Triglyph is .0500000.

Problem Seven

SIMPLE INTERCOLUMNIATION WITH THE DORIC ORDER (With Mutules)

(Without the Pedestal)

(English Measurement)

134.

The height of this Order is 3.000 m. × 629.92 = 1889.76 sixteenths.

PLATE XI

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Order	Entablature	.20000	377.95	.100000	188.98	.141667	267.72
	Column	.80000	1511.81			.0500000	94.49
			1889.76				
Entablature	Cornice	.0750000	141.73	.100000	188.98	.141667	267.72
	Frieze	.0750000	141.73			.0416667	78.74
	Architrave	.0500000	94.49	.00833334	15.75	.0500000	94.49
			377.95				
Column	Capital	.5000000	94.49	.0229167	43.31	.0645834	122.05
	Shaft	.700000	1322.83			.0500000	94.49
	Base	.0500000	94.49	.0208334	39.37	.0708334	113.86
			1512.81				
			1889.76				

Simple Doric Intercolumniation

Height of the Order is 1889.76 sixteenths.

Distance From Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening	
Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
.375000	708.66	.275000	519.68	.275000	519.68	.800000	1511.81

N. B.—English measurements ×.0015875=meters.

	Moulding Name of	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Cornice	Fillet	.00416667	7.87	.100000	188.98	.141667	267.72
	Cyma Recta......	.0125000	23.62				
	Fillet	.00208334	3.94	.0875000	165.35	.129167	244.09
				.0864584	163.40	.128125	242.13
	Cyma Reversa....	.00416667	7.87	.0822917	155.51	.123959	234.25
	Corona	.0145834	27.56	.0812500	153.54	.122917	232.28
				.0791667	149.61	.120834	228.35
	Cyma Reversa....	.00416667	7.87	.0760417	143.72	.117709	222.44
	Mutule	.0125000	23.62	.0750000	141.73	.116667	220.47
	Fillet	.00208334	3.94	.0166667	31.50	.0583334	110.24
	Ovolo	.00833334	15.75	.0145834	27.56	.0562500	106.30
	Fillet	.00208334	3.94	.00625000	11.81	.0479167	90.55
	Capital of Triglyph	.00833334	15.75	.00312500	5.91	.0447917	84.65
			141.73				
Frieze	Frieze	.0750000	141.73			.0416667	78.74
Architrave	Fillet	.00833334	15.75	.00833334	15.75	.0500000	94.49
	Fascia[2]	.0250000	47.24	.00208334	3.94	.0437500	82.68
	Fascia[1]	.0166667	31.50			.0416667	78.74
			94.49				
Capital	Fillet	.00208334	3.94	.0229167	43.31	.0645834	122.05
				.0218750	41.34	.0635417	120.08
	Cyma Reversa....	.00416667	7.87	.0177084	33.46	.0593750	112.20
	Abacus	.0104167	19.69	.0166667	31.50	.0583334	110.24
				.0156250	29.53	.0572917	108.27
	Ovolo	.0104167	19.69	.00520834	9.84	.0468750	88.58
	Astragal	.00416667	7.87	.00625000	11.81	.0479167	90.55
	Fillet	.00208334	3.94	.00312500	5.91	.0447917	84.65
	Collarino	.0166667	31.50			.0416667	78.74
			94.50				
Shaft	Astragal	.00416667	7.87 }	.00729167	13.78	.0489584	92.52
	Fillet	.00208334	3.94 }*	.00416667	7.87	.0458334	86.61
	Shaft	.700000	1322.83				
	Upper Diam......	.0833334	157.48 }			.0416667	78.74
	Lower Diam......	.100000	188.98 }*			.0500000	94.49
Base	Fillet	.00416667	7.87	.00729167	13.78	.0572917	108.27
	Reed	.00416667	7.87	.0104167	19.69	.0604167	114.17
	Torus	.0166667	31.50	.0208334	39.37	.0708334	113.86
	Plinth	.0250000	47.24	.0208334	39.37	.0708334	113.86
			94.48				
			1889.76				

The factor for the Triglyph is .0500000.

Probem Eight

ARCADE INTERCOLUMNIATION WITH THE DORIC ORDER WITHOUT THE PEDESTAL (with Dentils)

(Metric Measurement)

135.　　　　　　　The height of this Order is 2.3684 meters.　　　　　　**PLATE XII**

Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
	Factor	Meters	Factor	Meters	Factor	Meters
Order						
Entablature	.200000	.4737	.100000	.2368	.141667	.3355
Column	.800000	1.8947			.0500000	.1184
		2.3684				
Entablature						
Cornice	.0750000	.1776	.100000	.2368	.141667	.3355
Frieze	.0750000	.1776			.0416667	.0987
Architrave	.0500000	.1184	.00833334	.0197	.0500000	.1184
		.4736				
Column						
Capital	.0500000	.1184	.0229167	.0543	.0645834	.1530
Shaft	.700000	1.6579			.0500000	.1184
Base	.0500000	.1184	.0208334	.0493	.0708334	.1678
		1.8947				
		2.3683				
Width of Triglyph—factor					.0500000	.1184
Width of Dentil—factor					.00833334	.0197
Space between Dentils—factor					.00416667	.0099

Doric Arcade Intercolumniation

Height of the Order is 2.3684 meters

Distance From Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening		Height of Impost	
Factor	Meters	Factor	Meters	Factor	Meters	Factor	Meters	Factor	Meters
.500000	1.1842	.400000	.9474	.350000	.8289	.700000	1.6579	.525000	1.2434
*.525000	1.2434	.425000	1.0066						

*Factors for increased width of "alette".

Impost and Archivolt of Arcade

Name of Moulding	Height		Projection	
	Factor	Meters	Factor	Meters
Impost F = .0500000				
Fillet	.00416667	.0099	.0177084	.0419
			.0156250	.0370
Ovolo	.0104167	.0247	.00520834	.0123
Reed	.00416667	.0099	.00729167	.0173
Fillet	.00208334	.0049	.00520834	.0123
Fascia²	.0166667	.0395	.00312500	.0074
Fascia¹	.0125000	.0296	.00208334	.0049
		.1185		
Archivolt F = .0291667				
Fillet	.00416667	.0099	.0125000	.0296
			.0104167	.0247
Cyma Reversa	.00833334	.0197	.00208334	.0047
Fascia	.0166667	.0395		
		.0691		

Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
	Factor	Meters	Factor	Meters	Factor	Meters
Cornice						
Fillet	.00416667	.0099	.100000	.2368	.141667	.3355
Cavetto	.0125000	.0296	.0875000	.2072	.129167	.3059
Fillet	.00208334	.0049	.0854167	.2023	.127084	.3010
			.0833334	.1974	.125000	.2961
Cyma Reversa	.00416667	.0099	.0791667	.1875	.120834	.2862
Corona	.0166667	.0395	.0770834	.1826	.118750	.2812
Fillet	.00208334	.0049	.0291667	.0778	.0708334	.1678
Fillet	.00208334	.0049	.0270837	.0641	.0687500	.1628
Dentils	.0125000	.0296	.0250000	.0592	.0666667	.1579
Fillet	.00208334	.0049	.0166667	.0395	.0583334	.1382
			.0145834	.0345	.0562500	.1322
Cyma Reversa	.00833334	.0197	.0625000	.0148	.0479167	.1135
Capital of The Triglyph	.00833334	.0197	.00416667	.0099	.0458334	.1086
		.1775				
Frieze						
Frieze	.0750000	.1776			.0416667	.0987
Architrave						
Fillet	.00833334	.0197	.00625000	.0148	.0479167	.1135
Fascia	.0416667	.0987			.0416667	.0987
		.1184				
Capital						
Fillet	.00208334	.0049	.0229167	.0543	.0645834	.1530
			.0218750	.0518	.0635417	.1505
Cyma Reversa	.00416667	.0099	.0177084	.0419	.0593750	.1406
Abacus	.0104167	.0247	.0166667	.0395	.0583334	.1382
Ovolo	.0104167	.0247	.0156250	.0370	.0572917	.1357
Fillet	.00208334	.0049	.00520834	.0123	.0468750	.1110
Fillet	.00208334	.0049	.00416667	.0099	.0458334	.1086
Fillet	.00208334	.0049	.00312500	.0074	.0447917	.1061
Collarino	.0166667	.0395			.0416667	.0987
		.1184				
Shaft						
Astragal	.00416667}	.0099}	.00729167	.0173	.0489584	.1159
Fillet	.00208334}*	.0049}*	.00416667	.0099	.0458334	.1086
Shaft	.700000	1.6579				
Upper Diam	.0833334	.1974}			.0416667	.0987
Lower Diam	.100000	.2368}*			.0500000	.1184
		1.6579				
Base						
Fillet	.00416667	.0099	.00729167	.0173	.0572917	.1357
Reed	.00416667	.0099	.0104167	.0247	.0604167	.1431
Torus	.0166667	.0395	.0208334	.0493	.0708334	.1678
Plinth	.0250000	.0592	.0208334	.0493	.0708334	.1678
		.1185				
		2.3683				

Problem Eight

ARCADE INTERCOLUMNIATION WITH THE DORIC ORDER WITHOUT THE PEDESTAL (With Dentils)

(English Measurement)

136. The height of this Order is 2.3684 m. × 629.92 = 1491.90 sixteenths. **PLATE XII**

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Sixteenths	Factor	Sixteenths	Factor	Sixteenths
Order	Entablature ..	.200000	298.38	.100000	149.19	.141667	211.35
	Column	.800000	1193.52			.0500000	74.60
			1491.90				
Entablature	Cornice	.0750000	111.89	.100000	149.19	.141667	211.35
	Frieze	.0750000	111.89			.0416667	62.16
	Architrave	.0500000	74.60	.00833334	12.43	.0500000	74.60
			298.38				
Column	Capital	.0500000	74.60	.0229167	34.19	.0645834	96.35
	Shaft	.700000	1044.33			.0500000	74.60
	Base	.0500000	74.60	.0208334	31.08	.0708334	105.68
			1193.53				
			1491.91				

		Factor	Sixteenths
	Width of Triglyph—factor	.0500000	74.60
	Width of Dentil—factor	.00833334	12.43
	Space between Dentils—factor	.00416667	6.22

Doric Arcade Intercolumniation

Height of the Order is 1491.90 sixteenths.

Distance From Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening		Height of Impost	
Factor	Sixteenths	Factor	Sixteenths	Factor	Sixteenths	Factor	Sixteenths	Factor	Sixteenths
.500000	745.95	.400000	596.76	.350000	522.17	.700000	1044.33	.525000	783.25
*.525000	783.25	.425000	634.06						

*Factors for increased width of "alette."

Impost and Archivolt of Arcade

	Name of Moulding	Height		Projection	
		Factor	Sixteenths	Factor	Sixteenths
Impost F=.0500000	Fillet	.00416667	6.22	.0177084	26.42
				.0156250	23.31
	Ovolo	.0104167	15.54	.00520834	7.77
	Reed	.00416667	6.22	.00729167	10.88
	Fillet	.00208334	3.11	.00520834	7.77
	Fascia²	.0166667	24.87	.00312500	4.66
	Fascia¹	.0125000	18.65	.00208334	3.11
			74.61		
Archivolt F=.0291667	Fillet	.00416667	6.22	.0125000	18.65
				.0104167	15.54
	Cyma Reversa.....	.00833334	12.43	.00208334	3.11
	Fascia	.0166667	24.87		
			43.52		

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Sixteenths	Factor	Sixteenths	Factor	Sixteenths
Cornice	Fillet	.00416667	6.22	.100000	149.19	.141667	211.35
	Cavetto	.0125000	18.65	.0875000	130.54	.129167	192.70
	Fillet	.00208334	3.11	.0854167	127.43	.127084	189.60
				.0833334	124.33	.125000	186.49
	Cyma Reversa	.00416667	6.22	.0791667	118.11	.120834	180.27
	Corona	.0166667	24.87	.0770834	115.00	.118750	177.16
	Fillet	.00208334	3.11	.0291667	43.51	.0708334	105.68
	Fillet	.00208334	3.11	.0270837	40.41	.0687500	102.57
	Dentils	.0125000	18.65	.0250000	37.29	.0666667	99.46
	Fillet	.00208334	3.11	.0166667	24.87	.0583334	87.03
				.0145834	21.76	.0562500	83.92
	Cyma Reversa	.00833334	12.43	.00625000	9.32	.0479167	71.49
	Capital of the Triglyph ...	.00833334	12.43	.00416667	6.22	.0458334	68.38
			111.91				
Frieze	Frieze	.0750000	111.89			.0416667	62.16
Architrave	Fillet	.00833334	12.43	.00625000	9.32	.0479167	71.49
	Fascia	.0416667	62.16			.0416667	62.16
			74.59				
Capital	Fillet	.00208334	3.11	.0229167	34.19	.0645834	96.35
				.0218750	32.64	.0635417	94.80
	Cyma Reversa	.00416667	6.22	.0177084	26.42	.0593750	88.58
	Abacus	.0104167	15.54	.0166667	24.87	.0583334	87.03
	Ovolo	.0104167	15.54	.0156250	23.31	.0572917	85.47
	Fillet	.00208334	3.11	.00520834	7.77	.0468750	69.93
	Fillet	.00208334	3.11	.00416667	6.22	.0458334	68.38
	Fillet	.00208334	3.11	.00312500	4.66	.0447917	66.82
	Collarino	.0166667	24.87			.0416667	62.16
			74.61				
Shaft	Astragal	.00416667	6.22}*	.00729167	10.88	.0489584	73.04
	Fillet	.00208334	3.11}	.00416667	6.22	.0458334	68.38
	Shaft	.700000	1044.33				
	Upper Diam...	.0833334	124.33}*			.0416667	62.16
	Lower Diam..	.100000	149.19}			.0500000	74.60
			1044.33				
Base	Fillet	.00416667	6.22	.00729167	10.88	.0572917	85.47
	Reed	.00416667	6.22	.0104167	15.54	.0604167	90.14
	Torus	.0166667	24.87	.0208334	31.08	.0708334	105.68
	Plinth	.0250000	37.29	.0208334	31.08	.0708334	105.68
			74.60				
			1491.93				

Problem Nine

ARCADE INTERCOLUMNIATION WITH THE DORIC ORDER WITH THE PEDESTAL. (With Mutules)

(Metric Measurement)

137. The height of this Order is 3.000 meters.

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Meters	Factor	Meters	Factor	Meters
Order	Entablature	.157895	.4737	.0789474	.2368	.111843	.3355
	Column	.631579	1.8947			.0394737	.1185
	Pedestal	.210527	.6316	.0197369	.0592	.0756579	.2270
			3.0000				
Entablature	Cornice	.0592106	.1776	.0789474	.2368	.111843	.3355
	Frieze	.0592106	.1776			.0328948	.0987
	Architrave	.0394737	.1184	.00657895	.0197	.0394737	.1184
			.4736				
Column	Capital	.0394737	.1184	.0180922	.0543	.0509869	.1530
	Shaft	.552632	1.6579			.0394737	.1184
	Base	.0394737	.1184	.0164474	.0493	.0559211	.1678
			1.8947				
Pedestal	Cap	.0197369	.0592	.0197369	.0592	.0756579	.2270
	Dado	.157895	.4737			.0559211	.1678
	Basement	.0328948	.0987	.0148027	.0444	.0707237	.2122
			.6316				
			2.9999				

Doric Arcade Intercolumniation

Height of the Order is 3.000 meters.

Distance From Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening		Height of Impost	
Factor	Meters	Factor	Meters	Factor	Meters	Factor	Meters	Factor	Meters
.592106	1.7763	.513158	1.5395	.394737	1.1842	.789474	2.3684	.592106	1.7763

Impost and Archivolt of Arcade

	Name of Moulding	Height		Projection	
		Factor	Meters	Factor	Meters
Impost F=.0394737	Fillet	.00328948	.0099	.0139803	.0419
				.0123356	.0370
	Ovolo	.00822369	.0247	.00411185	.0123
	Reed	.00328948	.0099	.00575658	.0173
	Fillet	.00164474	.0049	.00411185	.0123
	Fascia²	.0131579	.0395	.00246711	.0074
	Fascia¹	.00986843	.0296	.00164474	.0049
			.1185		

(Archivolt is the same as the Impost)

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Meters	Factor	Meters	Factor	Meters
Cornice	Fillet	.00328948	.0099	.0789474	.2368	.111843	.3355
	Cyma Recta........	.00986843	.0296				
	Fillet	.00164447	.0049	.0690790	.2072	.101974	.3059
				.0682566	.2048	.101152	.3035
	Cyma Reversa......	.00328948	.0099	.0649672	.1949	.0978619	.2936
	Corona	.0115132	.0345	.0641448	.1924	.0970395	.2911
				.0625000	.1875	.0953948	.2862
	Cyma Reversa......	.00328948	.0099	.0600329	.1801	.0929277	.2788
	Mutule	.00986843	.0296	.0592106	.1776	.0921053	.2763
	Fillet	.00164474	.0049	.0131579	.0395	.0460527	.1382
	Ovolo	.00657895	.0197	.0115132	.0345	.0444079	.1332
	Fillet	.00164474	.0049	.00493422	.0148	.0378290	.1135
	Capital of Triglyph	.00657895	.0197	.00246711	.0074	.0353619	.1061
			.1775				
Frieze	Frieze	.0592106	.1776			.0328948	.0987
Architrave	Fillet	.00657895	.0197	.00657895	.0197	.0394737	.1184
	Fascia²	.0197369	.0592	.00164474	.0049	.0345395	.1036
	Fascia¹	.0131579	.0395			.0328948	.0989
			.1184				
Capital	Fillet	.00164474	.0049	.0180922	.0543	.0509869	.1530
				.0172698	.0518	.0501645	.1505
	Cyma Reversa.....	.00328948	.0099	.0139803	.0419	.0467850	.1404
	Abacus	.00822369	.0247	.0131579	.0395	.0460527	.1382
				.0122356	.0370	.0452303	.1357
	Ovolo	.00822369	.0247	.00411185	.0123	.0370066	.1110
	Astragal	.00328948	.0099	.00493422	.0148	.0378290	.1135
	Fillet	.00164474	.0049	.00246711	.0074	.0353619	.1061
	Collarino	.0131579	.0395			.0328948	.0987
			.1185				
Shaft	Astragal	.00328948	.0099}*	.00575658	.0173	.0386514	.1160
	Fillet	.00164474	.0049}	.00328948	.0099	.0361843	.1086
	Shaft	.552632	1.6579				
	Upper Diam........	.0657895	.1974			.0328948	.0987
	Lower Diam........	.0789474	.2368}*			.0394737	.1184
			1.6579}				
Base	Fillet	.00328948	.0099	.00575658	.0173	.0452303	.1357
	Reed	.00328948	.0099	.00822369	.0247	.0476974	.1431
	Torus	.0131579	.0395	.0164474	.0493	.0559211	.1678
	Plinth	.0197369	.0592	.0164474	.0493	.0559211	.1678
			.1185				
Cap	Fillet	.00164474	.0049	.0197369	.0592	.0756579	.2270
	Ovolo	.00328948	.0099	.0180922	.0543	.0740132	.2220
	Fillet	.00164474	.0049	.0148027	.0444	.0707237	.2122
	Corona	.00822369	.0247	.0131579	.0395	.0690790	.2072
				.00493422	.0148	.0608553	.1826
	Cyma Reversa.....	.00493422	.0148	.00164474	.0049	.0575658	.1727
			.0592				
Dado	Dado	.157895	.4737			.0559211	.1678
Basement	Fillet	.00164474	.0049	.00493422	.0148	.0608553	.1826
	Reed	.00328948	.0099	.00657895	.0197	.0625000	.1875
				.00740132	.0222	.0633224	.1900
	Cyma Reversa.....	.00657895	.0197	.0123356	.0370	.0682566	.2048
	Plinth	.00822369	.0247	.0131579	.0395	.0690790	.2072
	Sub-base	.0131579	.0395	.0148027	.0444	.0707237	.2122
			.0987				
			3.0000				

Width of Triglyph—factor .0394737 = .1184

Problem Nine

ARCADE INTERCOLUMNIATION WITH THE DORIC ORDER WITH THE PEDESTAL. (With Mutules)

(English Measurement)

138. The height of this Order is 3.000 m. ✕629.92=1889.76 sixteenths. **PLATE XIII**

Name of Member	Height		Projection From Face of Column		Projection From Axic of Column	
	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Order						
Entablature	.157895	298.38	.0789474	149.19	.111843	211.35
Column	.631579	1193.53			.0394737	74.60
Pedestal	.210527	397.85	.0197369	37.30	.0756579	142.98
		1889.76				
Entablature						
Cornice	.0592106	111.89	.0789474	149.19	.111843	211.35
Frieze	.0592106	111.89			.0328948	62.16
Architrave	.0394737	74.60	.00657895	12.43	.0394737	74.60
		298.38				
Column						
Capital	.0394737	74.60	.0180922	34.19	.0509869	96.35
Shaft	.552632	1044.33			.0394737	74.60
Base	.0394737	74.60	.0164474	31.08	.0559211	105.68
		1193.53				
Pedestal						
Cap	.0197369	37.30	.0197369	37.30	.0756579	142.98
Dado	.157895	298.38			.0559211	105.68
Basement	.0328948	62.16	.0148027	27.97	.0707237	133.65
		397.84				
		1889.75				

Name of Moulding	Height		Projection From Face of Column		Projection From Axic of Column	
	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Cornice						
Fillet	.00328948	6.22	.0789474	149.19	.111843	211.35
Cyma Recta....	.00986843	18.65				
Fillet	.00164474	3.11	.0690790	130.54	.101974	192.71
			.0682566	128.99	.101152	191.15
Cyma Reversa.	.00328948	6.22	.0649672	122.77	.0978619	184.94
Corona	.0115132	21.76	.0641448	121.22	.0970395	183.38
			.0625000	118.11	.0953948	180.27
Cyma Reversa.	.00328948	6.22	.0600329	113.45	.0929277	175.61
Mutule	.00986843	18.65	.0592106	111.89	.0921053	174.06
Fillet	.00164474	3.11	.0131579	24.87	.0460527	87.03
Ovolo	.00657895	12.43	.0115132	21.76	.0444079	83.92
Fillet	.00164474	3.11	.00493422	9.32	.0378290	71.49
Capital of Triglyph	.00657895	12.43	.00246711	4.66	.0353619	66.83
		111.91				
Frieze						
Frieze	.0592106	111.89			.0328948	62.16
Architrave						
Fillet	.00657895	12.43	.00657895	12.43	.0394737	74.60
Fascia²	.0197369	37.30	.00164474	3.11	.0345395	65.27
Fascia¹	.0131579	24.87			.0328948	62.16
		74.60				
Capital						
Fillet	.00164474	3.11	.0180922	34.19	.0509869	96.35
			.0172698	32.64	.0501645	94.80
Cyma Reversa..	.00328948	6.22	.0139803	26.42	.0467850	88.41
Abacus	.00822369	15.54	.0131579	24.87	.0460527	87.03
			.0122356	23.31	.0452303	85.47
Ovolo	.00822369	15.54	.00411185	7.77	.0370066	69.93
Astragal	.00328948	6.22	.00493422	9.32	.0378290	71.49
Fillet	.00164474	3.11	.00246711	4.66	.0353619	66.83
Collarino	.0131579	24.87			.0328948	62.16
		74.61				
Shaft						
Astragal	.00328948	6.22}*	.00575658	10.88	.0386514	73.04
Fillet	.00164474	3.11}	.00328948	6.22	.0361843	68.38
Shaft	.552632	1044.33				
Upper Diam...	.0657895	124.33}*			.0328948	62.16
Lower Diam...	.0789474	149.19}			.0394737	74.60
		1044.33				
Base						
Fillet	.00328948	6.22	.00575658	10.88	.0452303	85.47
Reed	.00328948	6.22	.00822369	15.54	.0456974	90.14
Torus	.0131579	24.87	.0164474	31.08	.0559211	105.68
Plinth	.0197369	37.30	.0164474	31.08	.0559211	105.68
		74.61				
Cap						
Fillet	.00164474	3.11	.0197369	37.30	.0756579	142.98
Ovolo	.00328948	6.22	.0180922	34.19	.0740132	139.86
Fillet	.00164474	3.11	.0148027	27.97	.0707237	133.65
Corona	.00822369	15.54	.0131579	24.87	.0690790	130.54
			.00493422	9.32	.0608553	115.02
Cyma Reversa..	.00493422	9.32	.00164474	3.11	.0575658	110.88
		37.30				
Dado						
Dado	.157895	298.38			.0559211	105.68
Basement						
Fillet	.00164474	3.11	.00493422	9.32	.0608553	115.00
Reed	.00328948	6.22	.00657895	12.43	.0625000	118.11
			.00740132	13.99	.0633224	119.66
Cyma Reversa..	.00657895	12.43	.0123356	23.31	.0682566	128.99
Plinth	.00822369	15.54	.0131579	24.87	.0690790	130.54
Sub-base	.0131579	24.87	.0148027	27.97	.0707237	133.65
		62.17				
		1889.80				

Width of Triglyph-factor .0394737.

Doric Arcade Intercolumniation.

Height of the Order is 1889.76 sixteenths

Distance from Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening		Height of Impost	
Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
.592106	1118.94	.513158	969.75	.394737	745.96	.789474	1491.92	.592106	1118.94

Impost and Archivolt of Arcade

	Name of Moulding	Height		Projection	
		Factor	Six-teenths	Factor	Six-teenths
Impost F = .0394737	Fillet	.00328948	6.22	.0139803	26.42
				.0123356	23.31
	Ovolo	.00822369	15.54	.00411185	7.77
	Reed	.00328948	6.22	.00575658	10.88
	Fillet	.00164474	3.11	.00411185	7.77
	Fascia²	.0131579	24.87	.00246711	4.66
	Fascia¹	.00986843	18.65	.00164474	3.11
			74.61		

(Archivolt is same as the Impost)

PART TWELVE

Problem Ten

THE IONIC ORDER WITH THE PEDESTAL. (Antique)

(Metric Measurement)

139.   'The height of this Order is 5.000 meters.   **PLATE XIV**

	Name of Member	Height Factor	Height Meters	Projection From Face of Column Factor	Projection From Face of Column Meters	Projection From Axis of Column Factor	Projection From Axis of Column Meters
Order	Entablature	.157895	.7895	.0701755	.3509	.0994153	.4971
						.0292398	.1462
	Column	.631579	3.1579			.0350878	.1754
	Pedestal	.210527	1.0526	.0194932	.0975	.0682262	.3411
			5.0000				
Entablature	Cornice	.0614036	.3070	.0701755	.3509	.0994153	.4971
	Frieze	.0526316	.2632			.0292398	.1462
	Architrave	.0438597	.2193	.00974659	.0487	.0389864	.1949
			.7895				
Column	Capital	.0292398	.1462	.00974659	.0487	.0389864	.1949
						.0292398	.1462
	Shaft	.567252	2.8363			.0350878	.1754
	Base	.0350878	.1754	.0136453	.0682	.0487330	.2437
			3.1579				
Pedestal	Cap	.0175439	.0877	.0194932	.0975	.0682262	.3411
	Dado	.175439	.8772			.0487330	.2437
	Basement	.0175439	.0877	.0155946	.0780	.0643275	.3216
			1.0526				
			5.0000				

Attic or Modern Base

	Name of Member	Height Factor	Height Meters	Projection From Face of Column Factor	Projection From Face of Column Meters	Projection From Axis of Column Factor	Projection From Axis of Column Meters
F = .0350878	Upper Torus......	.00682262	.0341	.00828461	.0413	.0433724	.2169
	Fillet	.000974659	.0049	.00487330	.0244	.0399611	.1998
	Scotia	.00584796	.0292				
	Fillet	.000974659	.0049	.00779728	.0390	.0428850	.2144
	Lower Torus......	.00877193	.0439	.0136453	.0682	.0487330	.2437
	Plinth	.0116960	.0585	.0136453	.0682	.0487330	.2437
			.1755				

Impost of Arcade

	Name of Member	Height Factor	Height Meters	Projection From Face of Column Factor	Projection From Face of Column Meters		
F = .0350878	Fillet	.00194932	.0097	.0116960	.0585		
				.0107213	.0536		
	Cyma Reversa.....	.00292398	.0146	.00828461	.0414		
	Fascia³	.00584796	.0292	.00779728	.0390		
				.00682268	.0341		
	Ovolo	.00389864	.0195	.00292398	.0146		
	Reed	.00194932	.0097	.00389864	.0195		
	Fillet	.000974659	.0049	.00292398	.0146		
	Fascia²	.00974659	.0487	.00194932	.0097		
	Fascia¹	.00779728	.0390	.000974659	.0049		
			.1753				

Archivolt

	Name of Member	Height Factor	Height Meters	Projection From Face of Column Factor	Projection From Face of Column Meters		
F = .0350878	Fillet	.00292398	.0146	.00877193	.0439		
				.00779728	.0390		
	Cyma Reversa.....	.00584796	.0292	.00292398	.0146		
	Fascia²	.0146199	.0731	.00146199	.0073		
	Fascia¹	.0116960	.0585				
			.1754				

	Name of Moulding	Height Factor	Height Meters	Projection From Face of Column Factor	Projection From Face of Column Meters	Projection From Axis of Column Factor	Projection From Axis of Column Meters
Cornice	Fillet	.00292398	.0146	.0701755	.3509	.0994153	.4971
	Cyma Recta.......	.00974659	.0487				
	Fillet	.000974659	.0049	.0594542	.2973	.0886940	.4435
				.0584796	.2924	.0877193	.4386
	Cyma Reversa.....	.00389864	.0195	.0555556	.2778	.0847954	.4240
	Corona	.0116960	.0585	.0545809	.2729	.0838207	.4191
				.0272905	.1365	.0565303	.2827
	Ovolo	.00779728	.0390	.0194932	.0975	.0487330	.2437
	Reed	.00194932	.0097	.0204679	.1023	.0497077	.2485
	Fillet	.000974659	.0049	.0194932	.0975	.0487330	.2437
	Dentils	.0116960	.0585	.0185186	.0926	.0477583	.2388
	Fillet	.00194932	.0097	.0107213	.0536	.0399611	.1998
				.00974659	.0487	.0389864	.1949
	Cyma Reversa.....	.00779728	.0370	.00146199	.0073	.0307018	.1535
			.3070				
Frieze	Frieze	.0526316	.2632			.0292398	.1462
Architrave	Fillet	.00292398	.0146	.00974659	.0487	.0389864	.1949
				.00877193	.0439	.0380117	.1901
	Cyma Reversa.....	.00584797	.0292	.00389864	.0195	.0331385	.1657
	Fascia³	.0146199	.0731	.00292398	.0146	.0321638	.1608
	Fascia²	.0116960	.0585	.00146199	.0073	.0307018	.1535
	Fascia¹	.00877193	.0439			.0292398	.1462
			.2193				
Capital	Fillet	.00194932	.0097	.00974659	.0487	.0389864	.1949
				.00877193	.0439	.0380117	.1901
	Cyma Reversa.....	.00389864	.0195	.00584796	.0292	.0350878	.1754
	Fillet	.00194932	.0097	.00487330	.0244	.0341131	.1706
	Channel	.00584796	.0292			.0292398	.1462
				.0136453	.0682	.0428850	.2144
	Ovolo	.00974659	.0487	.00389864	.0195	.0331385	.1657
	Astragal	.00389864	.0195	.00584796	.0292	.0350878	.1754
	Fillet	.00194932	.0097	.00389864	.0195	.0331385	.1657
			.1460				
Shaft	Astragal	.00389864	.0195}*	.00584796	.0292	.0350878	.1754
	Fillet	.00194932	.0097}	.00389864	.0195	.0331385	.1657
	Shaft	.567252	2.8363				
	Fillet	.00292398	.0146}	.00389864	.0195	.0389864	.1949
	Upper Diam.......	.0584796	.2924}*			.0292398	.1462
	Lower Diam.......	.0701755	.3509}			.0350878	.1754
			2.8363				
Base	Torus	.00974659	.0487	.00974659	.0487	.0448344	.2242
	Fillet	.000487330	.0024	.00487330	.0244	.0399611	.1998
	Upper Scotia......	.00389864	.0195				
	Fillet	.000487330	.0024	.00877193	.0439	.0438597	.2193
	2 Reeds	.00389864	.0195	.00974659	.0487	.0448344	.2242
	Fillet	.000487330	.0024	.00877193	.0439	.0438597	.2193
	Lower Scotia......	.00389864	.0195				
	Fillet	.000487330	.0024	.0126706	.0634	.0477583	.2388
	Plinth	.0116960	.0585	.0136453	.0682	.0487330	.2437
			.1755				
Cap	Fillet	.000974659	.0049	.0194932	.0975	.0682262	.3411
				.0185186	.0926	.0672515	.3363
	Cyma Reversa.....	.00292398	.0146	.0160819	.0804	.0648149	.3241
	Corona	.00584796	.0292	.0155946	.0780	.0643275	.3216
				.00974659	.0487	.0584796	.2924
	Ovolo	.00584796	.0292	.00389864	.0195	.0526316	.2632
	Reed	.00194932	.0097	.00487330	.0244	.0536063	.2680
			.0876				
Dado	Fillet	.00194932	.0097	.00292398	.0146	.0516570	.2583
	Dado	.171540	.8577			.0487330	.2437
	Fillet	.00194932	.0097	.00389864	.0195	.0526316	.2632
			.8771				
Basement	Reed	.00292398	.0146	.00584796	.0292	.0545809	.2714
				.00389864	.0195	.0526316	.2632
	Cyma Recta	.00584796	.0292	.0136453	.0682	.0623787	.3119
	Fillet	.000974659	.0049	.0136453	.0682	.0623787	.3119
	Plinth	.00779728	.0390	.0155946	.0780	.0643275	.3216
			.0877				
			4.9997				

N. B.—Metric measurements ×629.92=Sixteenths of an inch.

Problem Ten

THE IONIC ORDER WITH THE PEDESTAL (Antique)

(English Measurement)

140. The height of this Order is 5.000 m. × 629.92 = 3149.60 sixteenths.   **PLATE XIV**

Left Table

	Name of Member	Height Factor	Height Six-teenths	Projection From Face of Column Factor	Projection From Face of Column Six-teenths	Projection From Axis of Column Factor	Projection From Axis of Column Six-teenths
Order	Entablature ...	.157895	497.31	.0701755	221.02	.0994153	313.12
						.0292398	92.09
	Column	.631579	1989.22			.0350878	110.51
	Pedestal	.210527	663.08	.0194932	61.40	.0682262	214.89
			3149.61				
Entablature	Cornice	.0614036	193.40	.0701755	221.02	.0994153	313.12
	Frieze	.0526316	165.77			.0292398	92.09
	Architrave ...	.0438597	138.14	.00974659	30.70	.0389864	122.79
			497.31				
Column	Capital	.0292398	92.09	.00974659	30.70	.0389864	122.79
						.0292398	92.09
	Shaft	.567252	1786.62			.0350878	110.51
	Base	.0350878	110.51	.0136453	42.98	.0487330	153.49
			1989.22				
Pedestal	Cap	.0175439	55.26	.0194932	61.40	.0682262	214.89
						.0487330	153.49
	Dado	.175439	552.56				
	Basement	.0175439	55.26	.0155946	49.12	.0643275	202.61
			663.08				
			3149.61				

Attic or Modern Base

F=.0350878

Name of Member	Height Factor	Height Six-teenths	Projection From Face of Column Factor	Projection From Face of Column Six-teenths	Projection From Axis of Column Factor	Projection From Axis of Column Six-teenths
Upper Torus..	.00682262	21.49	.00828461	26.06	.0433724	136.61
Fillet	.000974659	3.07	.00487330	15.35	.0399611	125.86
Scotia	.00584796	18.42				
Fillet	.000974659	3.07	.00779728	24.56	.0428850	135.07
Lower Torus..	.00877193	27.63	.0136453	42.98	.0487330	153.49
Plinth	.0116960	36.84	.0136453	42.98	.0487330	153.49
		110.52				

Impost of Arcade

F=.0350878

Name of Member	Height Factor	Height Six-teenths	Projection From Face of Column Factor	Projection From Face of Column Six-teenths		
Fillet	.00194932	6.14	.0116960	36.84		
			.0107213	33.77		
Cyma Reversa	.00292398	9.21	.00828461	26.06		
Fascia³	.00584796	18.42	.00779728	24.56		
			.00682268	21.49		
Ovolo	.00389864	12.28	.00292398	9.21		
Reed	.00194932	6.14	.00389864	12.28		
Fillet	.000974659	3.07	.00292398	9.21		
Fascia²	.00974659	30.70	.00194932	6.14		
Fascia¹	.00779728	24.56	.000974659	3.07		
		110.52				

Archivolt

F=.0350878

Name of Member	Height Factor	Height Six-teenths	Projection From Face of Column Factor	Projection From Face of Column Six-teenths		
Fillet	.00292398	9.21	.00877193	27.63		
			.00779728	24.56		
Cyma Reversa	.00584796	18.42	.00292398	9.21		
Fascia²	.0146199	46.05	.00146199	4.60		
Fascia¹	.0116960	36.84				
		110.52				

Right Table

	Name of Moulding	Height Factor	Height Six-teenths	Projection From Face of Column Factor	Projection From Face of Column Six-teenths	Projection From Axis of Column Factor	Projection From Axis of Column Six-teenths
Cornice	Fillet	.00292398	9.21	.0701755	221.02	.0994153	313.12
	Cyma Recta...	.00974659	30.70				
	Fillet	.000974659	3.07	.0594542	187.26	.0886940	279.35
				.0584796	184.19	.0877193	276.28
	Cyma Reversa	.00389864	12.28	.0555556	174.98	.0847954	267.07
	Corona	.0116960	36.84	.0545809	171.91	.0838207	264.00
				.0272905	85.95	.0565303	178.05
	Ovolo	.00779728	24.56	.0194932	61.40	.0487330	153.49
	Reed	.00194932	6.14	.0204679	64.47	.0497077	156.56
	Fillet	.000974659	3.07	.0194932	61.40	.0487330	153.49
	Dentils	.0116960	36.84	.0185186	58.33	.0477583	150.42
	Fillet	.00194932	6.14	.0107213	33.77	.0399611	125.86
				.00974659	30.70	.0389864	122.79
	Cyma Reversa	.00779728	24.56	.00146199	4.60	.0307018	96.70
			193.41				
Frieze	Frieze	.0526316	165.77			.0292398	92.09
Architrave	Fillet	.00292398	9.21	.00974659	30.70	.0389864	122.79
				.00877193	27.63	.0380117	119.72
	Cyma Reversa	.00584797	18.42	.00389864	12.28	.0331385	104.37
	Fascia³	.0146199	46.05	.00292398	9.21	.0321638	101.30
	Fascia²	.0116960	36.84	.00146199	4.61	.0307018	96.70
	Fascia¹	.00877193	27.63			.0292398	92.09
			138.15				
Capital	Fillet	.00194932	6.14	.00974659	30.70	.0389864	122.79
				.00877193	27.63	.0380117	119.72
	Cyma Reversa	.00389864	12.28	.00584796	18.42	.0350878	110.51
	Fillet	.00194932	6.14	.00487330	15.35	.0341131	107.46
	Channel	.00584796	18.42			.0292398	92.09
				.0136453	42.98	.0428850	135.07
	Ovolo	.00974659	30.70	.00389864	12.28	.0331385	104.37
	Astragal	.00389864	12.28	.00584796	18.42	.0350878	110.51
	Fillet	.00194932	6.14	.00389864	12.28	.0331385	104.37
			92.10				
Shaft	Astragal	.00389864	12.28}*	.00584796	18.42	.0350878	110.51
	Fillet	.00194932	6.14}	.00389864	12.28	.0331385	104.37
	Shaft	.567252	1786.62				
	Fillet	.00292398	9.21}	.00389864	12.28	.0389864	122.79
	Upper Diam..	.0584796	184.19}*			.0292398	92.09
	Lower Diam...	.0701755	221.02}			.0350878	110.51
			1786.62				
Base	Torus	.00974659	30.70	.00974659	30.70	.0448344	141.21
	Fillet	.000487330	1.53	.00487330	15.35	.0399611	125.86
	Upper Scotia..	.00389864	22.28				
	Fillet	.000487330	1.53	.00877193	27.63	.0438597	138.14
	2 Reeds	.00389864	12.28	.00974659	30.70	.0448344	141.21
	Fillet	.000487330	1.53	.00877193	27.63	.0438597	138.14
	Lower Scotia..	.00389864	12.28				
	Fillet	.000487330	1.53	.0126706	39.91	.0477583	150.42
	Plinth	.0116960	36.84	.0136453	42.98	.0487330	153.49
			110.50				
Cap	Fillet	.000974659	3.07	.0194932	61.40	.0682262	214.89
				.0185186	58.33	.0672515	211.82
	Cyma Reversa	.00292398	9.21	.0160819	50.62	.0648149	204.14
	Corona	.00584796	18.42	.0155946	49.12	.0643275	202.61
				.00974659	30.70	.0584796	184.19
	Ovolo	.00584796	18.42	.00389864	12.28	.0526316	165.77
	Reed	.00194932	6.14	.00487330	15.35	.0536063	168.84
			55.26				
Dado	Fillet	.00194932	6.14	.00292398	9.21	.0516570	162.70
	Dado	.171540	540.28			.0487330	153.49
	Fillet	.00194932	6.14	.00389864	12.28	.0526316	165.77
			552.56				
Basement	Reed	.00292398	9.21	.00584796	18.42	.0545809	171.91
				.00389864	12.28	.0526316	165.77
	Cyma Recta...	.00584796	18.42	.0136453	42.98	.0623787	196.47
	Fillet	.000974659	3.07	.0136453	42.98	.0623787	196.47
	Plinth	.00779728	24.56	.0155946	49.12	.0643275	202.61
			55.26				
			3149.63				

N. B.—English measurements ×.0015875=meters.

Problem Eleven
THE IONIC ORDER WITH THE PEDESTAL (Modern)
(Metric Measurement)

141. The height of this Order is 5.000 meters. PLATE XV

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Meters	Factor	Meters	Factor	Meters
Order	Entablature	.157895	.7895	.0740741	.3704	.103314	.5166
						.0292398	.1462
	Column	.631579	3.1579			.0350878	.1754
	Pedestal	.210527	1.0526	.0194932	.0975	.0682262	.3411
			5.0000				
Entablature	Cornice	.0614036	.3070	.0740741	.3704	.103314	.5166
	Frieze	.0526316	.2632			.0292398	.1462
	Architrave	.0438597	.2193	.00974659	.0487	.0389864	.1949
			.7895				
Column	Capital	.0292398	.1462	.00974659	.0487	.0526316	.2632
						.0292398	.1462
	Shaft	.567252	2.8363			.0350878	.1754
	Base	.0350878	.1754	.0136453	.0682	.0487330	.2437
			3.1579				
Pedestal	Cap	.0175439	.0877	.0194932	.0975	.0682260	.3411
	Dado	.175439	.8772			.0487330	.2437
	Basement	.0175439	.0877	.0155946	.0780	.0643275	.3216
			1.0526				
			5.0000				

Width of Mutule F=.0136453.

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Meters	Factor	Meters	Factor	Meters
Cornice	Fillet	.00292398	.0146	.0740741	.3704	.103314	.5166
	Cyma Recta	.00779728	.0390				
	Fillet	.000974659	.0049	.0662769	.3314	.0955166	.4776
				.0653022	.3265	.0945420	.4727
	Cyma Reversa....	.00243665	.0122	.0623782	.3119	.0916180	.4581
	Corona	.0116960	.0585	.0614036	.3070	.0906433	.4532
				.0609162	.3046	.0901560	.4508
	Cyma Reversa....	.00194932	.0097	.0579923	.2900	.0872320	.4362
	Modillions	.00877193	.0439	.0575049	.2875	.0867447	.4337
	Fillet	.000974659	.0049	.0258285	.1291	.0550683	.2753
	Ovolo	.00730995	.0366	.0248539	.1243	.0540956	.2705
	Fillet	.000974659	.0049	.0175439	.0877	.0467837	.2339
	Dentils	.00877193	.0439	.0165693	.0829	.0458090	.2290
	Fillet	.000974659	.0049	.00877193	.0439	.0380117	.1901
				.00779728	.0390	.0370371	.1852
	Cyma Reversa....	.00584796	.0292	.00292398	.0146	.0321638	.1608
			.3072				
Frieze	Fillet	.00194932	.0097	.00194932	.0097	.0311891	.1560
	Frieze	.0506823	.2534			.0292398	.1462
			.2631				
Architrave	Fillet	.00292398	.0146	.00974659	.0487	.0389864	.1949
				.00877193	.0439	.0380117	.1901
	Cyma Reversa....	.00487330	.0244	.00292398	.0146	.0321638	.1608
	Reed	.00194932	.0097	.00389864	.0195	.0331385	.1657
	Fascia³	.0146199	.0731	.00292398	.0146	.0321638	.1608
	Fascia²	.0116960	.0585	.00146199	.0073	.0307018	.1535
	Fascia¹	.00779728	.0390			.0292398	.1462
			.2193				
Capital	Ovolo	.00341131	.0171	.0190059	.0950	.0482457	.2412
	Reed	.00146199	.0073	.0155946	.0780	.0448344	.2242
	Abacus	.00682262	.0341	.0116960	.0585	.0409357	.2047
	Channel	.00389864	.0195			.0292398	.1462
				.0116960	.0585	.0409357	.2047
	Ovolo	.00779728	.0390	.00389864	.0195	.0331385	.1657
	Astragal	.00389864	.0195	.00584796	.0292	.0350878	.1754
	Fillet	.00194932	.0097	.00389864	.0195	.0331385	.1657
			.1460				
Shaft	Astragal	.00389864	.0195}*	.00584796	.0292	.0350878	.1754
	Fillet	.00194932	.0097}	.00389864	.0195	.0331385	.1657
	Shaft	.567252	2.8363				
	Fillet	.00292398	.0146}	.00389864	.0195	.0389864	.1949
	Upper Diam.......	.0584796	.2924}*			.0292398	.1462
	Lower Diam.......	.0701755	.3509}			.0350878	.1754
			2.8363				
Base	Upper Torus......	.00682262	.0341	.00828461	.0414	.0433724	.2164
	Fillet	.000974659	.0049	.00487330	.0244	.0399611	.1998
	Scotia	.00584796	.0292				
	Fillet	.000974659	.0049	.00779728	.0390	.0428850	.2144
	Lower Torus	.00877193	.0439	.0136453	.0682	.0487330	.2437
	Plinth	.0116960	.0585	.0136453	.0682	.0487330	.2437
			.1755				
Cap	Fillet	.000974659	.0049	.0194932	.0975	.0682262	.3411
				.0185186	.0926	.0672515	.3365
	Cyma Reversa....	.00292398	.0146	.0160819	.0804	.0648149	.3241
	Corona	.00584796	.0292	.0155946	.0780	.0643275	.3216
				.00974659	.0487	.0584796	.2924
	Ovolo	.00584796	.0292	.00389864	.0195	.0526316	.2632
	Reed	.00194932	.0097	.00487330	.0244	.0536063	.2680
			.0876				
Dado	Fillet	.00194932	.0097	.00292398	.0146	.0516570	.2583
	Dado	.171540	.8577			.0487330	.2437
	Fillet	.00194932	.0097	.00389864	.0195	.0526316	.2632
			.8771				
Basement	Reed	.00292398	.0146	.0584796	.0292	.0545809	.2714
				.00389864	.0195	.0526316	.2632
	Cyma Recta	.00584796	.0292	.0136453	.0682	.0623787	.3119
	Fillet	.000974659	.0049	.0136453	.0682	.0623787	.3119
	Plinth	.00779728	.0390	.0155946	.0780	.0643275	.3216
			.0877				
			5.0000				

Problem Eleven

THE IONIC ORDER WITH THE PEDESTAL (MODERN)

(English Measurement)

142.

The height of this Order is 5.000 m. × 629.92 = 3149.60 sixteenths.

PLATE XV

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Order	Entablature ..	.157895	497.31	.0740741	233.30	.103314	325.40
						.0292398	92.09
						.0350878	110.51
	Column	.631579	1989.22			.0682262	214.89
	Pedestal	.210527	663.08	.0194932	61.40		
			3149.61				
Entablature	Cornice	.0614036	193.40	.0740741	233.30	.103314	325.40
						.0292398	92.09
	Frieze	.0526316	165.77				
	Architrave ...	.0438597	138.14	.00974659	30.70	.0389864	122.79
			497.31				
Column	Capital	.0292398	92.09	.00974659	30.70	.0526316	165.77
						.0292398	92.09
						.0350878	110.51
	Shaft	.567252	1786.62			.0487330	153.49
	Base	.0350878	110.51	.0136453	· 42.98		
			1989.22				
Pedestal	Cap	.0175439	55.26	.0194932	61.40	.0682262	214.89
						.0487330	153.49
	Dado	.175439	552.56			.0643275	202.61
	Basement	.0175439	55.26	.0155946	· 49.12		
			663.08				
			3149.61				

Width of Mutule F=.0136453.

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six teenths
Cornice	Fillet	.00292398	9.21	.0740741	233.30	.103314	325.40
	Cyma Recta...	.00779728	24.56				
	Fillet	.000974659	3.07	.0662769	208.75	.0955166	300.84
				.0653022	205.68	.0945420	297.77
	Cyma Reversa	.00243665	7.67	.0623782	196.47	.0916180	288.56
	Corona	.0116960	36.84	.0614036	193.40	.0906433	285.49
				.0609162	191.86	.0901560	283.97
	Cyma Reversa	.00194932	6.14	.0579923	182.65	.0872320	274.75
	Modillions	.00877193	27.63	.0575049	181.12	.0867447	273.21
	Fillet	.000974659	3.07	.0258285	81.35	.0550683	173.44
	Ovolo	.00730995	23.02	.0248539	78.28	.0540956	170.38
	Fillet	.000974659	3.07	.0175439	55.26	.0467837	147.37
	Dentils	.00877193	27.63	.0165693	52.19	.0458090	144.28
	Fillet	.000974659	3.07	.00877193	27.63	.0380117	119.72
				.00779728	24.56	.0370371	116.65
	Cyma Reversa	.00584796	18.42	.00292398	9.21	.0321638	101.30
			193.40				
Frieze	Fillet	.00194932	6.14	.00194932	6.14	.0311891	98.23
	Frieze	.0506823	159.63			.0292398	92.09
			165.77				
Architrave	Fillet	.00292398	9.21	.00974659	30.70	.0389864	122.79
				.00877193	· 27.63	.0380117	119.72
	Cyma Reversa	.00487330	15.35	.00292398	9.21	.0321638	101.30
	Reed	.00194932	6.14	.00389864	12.28	.0331385	104.37
	Fascia³	.0146199	46.05	.00292398	9.21	.0321638	101.30
	Fascia²	.0116960	36.84	.00146199	4.61	.0307018	96.70
	Fascia¹	.00779728	24.56			.0292398	92.09
			138.15				
Capital	Ovolo	.00341131	10.74	.0190059	59.86	.0482457	151.95
	Reed	.00146199	4.61	.0155946	49.12	.0448344	141.23
	Abacus	.00682262	21.49	.0116960	36.84	.0409357	128.93
	Channel	.00389864	12.28			.0292398	92.09
				.0116960	36.84	.0409357	128.93
	Ovolo	.00779728	24.56	.00389864	12.28	.0331385	104.37
	Astragal	.00389864	12.28	.00584796	18.42	.0350878	110.51
	Fillet	.00194932	6.14	.00389864	12.28	.0331385	104.37
			92.10				
Shaft	Astragal	.00389864	12.28}*	.00584796	· 18.42	.0350878	110.51
	Fillet	.00194932	6.14}	.00389864	12.28	.0331385	104.37
	Shaft	.567252	1786.62				
	Fillet	.00292398	9.21}	.00389864	12.28	.0389864	122.79
	Upper Diam...	.0584796	184.19}*			.0292398	92.09
	Lower Diam..	.0701755	221.02}			.0350878	· 110.51
			1786.62				
Base	Upper Torus..	.00682262	21.49	.00828461	26.06	.0433724	136.61
	Fillet	.000974659	3.07	.00487330	15.35	.0399611	125.86
	Scotia	.00584796	18.42				
	Fillet	.000974659	3.07	.00779728	24.56	.0428850	135.07
	Lower Torus..	.00877193	27.63	.0136453	42.98	.0487330	153.49
	Plinth	.0116960	36.84	.0136453	42.98	.0487330	153.49
			110.52				
Cap	Fillet	.000974659	3.07	.0194932	61.40	.0682262	214.89
				.0185186	58.33	.0672515	211.82
	Cyma Reversa	.00292398	9.21	.0160819	50.62	.0648149	204.14
	Corona	.00584796	18.42	.0155946	49.12	.0643275	202.61
				.00974659	30.70	.0584796	184.19
				.00389864	12.28	.0526316	165.77
	Ovolo	.00584796	18.42	.00487330	15.35	.0536063	168.84
	Reed	.00194932	6.14				
			55.26				
Dado	Fillet	.00194932	6.14	.00292398	9.21	.0516570	162.70
	Dado	.171540	540.28			.0487330	153.49
	Fillet	.00194932	6.14	.00389864	12.28	.0526316	165.77
			552.56				
Basement	Reed	.00292398	9.21	.00584796	18.42	.0545809	171.96
				.00389864	12.28	.0526316	165.67
	Cyma Recta...	.00584796	18.42	.0136453	42.98	.0623787	196.47
	Fillet	.000974659	3.07	.0136453	42.98	.0623787	196.47
	Plinth	.00779728	24.56	.0155946	49.12	.0643275	202.61
			55.26				
			3149.64				

Problem Twelve

CAPITAL OF THE IONIC ORDER WITH THE PEDESTAL (Antique)

(Metric Measurement) (English Measurement) **PLATE XVI**

143. The height of this Order is 5.000 meters. The height of this Order is 5.000 m. × 629.92 = 3149.60 sixteenths.

(Metric Measurement)

Name of Moulding	Height		Projection from Face of Column		Projection from Axis of Column	
	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Fillet	.00194932	.0097	.00974659	.0487	.0389864	.1947
			.00877193	.0439	.0380117	.1901
Cyma Reversa.	.00389864	.0195	.00584796	.0292	.0350878	.1754
Fillet	.00194932	.0097	.00487330	.0244	.0341131	.1706
Channel	.00584796	.0292			.0292398	.1462
			.0136453	.0682	.0428850	.2144
Ovolo	.00974659	.0487	.00389864	.0195	.0331385	.1657
Astragal	.00389864	.0195	.00584796	.0292	.0350878	.1754
Fillet	.00194932	.0097	.00389864	.0195	.0331385	.1657
		.1460				

(English Measurement)

Name of Moulding	Height		Projection from Face of Column		Projection from Axis of Column	
	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Fillet...........	.00194932	6.14	.00974659	30.70	.0389864	122.79
			.00877193	27.63	.0380117	119.72
Cyma Reversa.	.00389864	12.28	.00584796	18.42	.0350878	110.51
Fillet	.00194932	6.14	.00487330	15.35	.0341131	107.44
Channel	.00584796	18.42			.0292398	92.09
			.0136453	42.98	.0428850	135.07
Ovolo	.00974659	30.70	.00389864	12.28	.0331385	104.37
Astragal	.00389864	12.28	.00584796	18.42	.0350878	110.51
Fillet	.00194932	6.14	.00389864	12.28	.0331385	104.37
		92.10				

CAPITAL OF THE IONIC ORDER WITH THE PEDESTAL (Modern)

(Metric Measurement)

Name of Moulding	Height		Projection from Face of Column		Projection from Axis of Column	
	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Ovolo	.00341131	.0171	.0190059	.0950	.0482457	.2412
Reed	.00146199	.0073	.0155946	.0780	.0448344	.2212
Abacus	.00682262	.0341	.0116960	.0585	.0409357	.2047
Channel	.00389864	.0195			.0292398	.1462
			.0116960	.0585	.0409357	.2047
Ovolo	.00779728	.0390	.00389864	.0195	.0331385	.1657
Astragal	.00389864	.0195	.00584796	.0292	.0350878	.1754
Fillet	.00194932	.0097	.00389864	.0195	.0331385	.1657
		.1460				

(English Measurement)

Name of Moulding	Height		Projection from Face of Column		Projection from Axis of Column	
	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Ovolo	.00341131	10.74	.0190059	59.86	.0482457	151.95
Reed	.00146199	4.61	.0155946	49.12	.0448344	141.23
Abacus	.00682262	21.49	.0116960	36.84	.0409357	128.93
Channel	.00389864	12.28			.0292398	92.09
			.0116960	36.84	.0409357	128.93
Ovolo	.00779728	24.56	.00389864	12.28	.0331385	104.37
Astragal	.00389864	12.28	.00584796	18.42	.0350878	110.51
Fillet	.00194932	6.14	.00389864	12.28	.0331385	104.37
		92.10				

N. B.—Metric measurements × 629.92 = sixteenths of an inch.

N. B.—English measurements ×.0015875 = meters.

Problem Twelve

CAPITAL OF THE IONIC ORDER

144.   PLATE XVI

This Problem illustrates how to use "Table Three," page 37, article 90.

Order with the Pedestal.

Height of Order=5.000 meters×629.92=3149.60 sixteenths.

Order without the Pedestal.

Height of Order=3.9474 meters×629.92=2486.55 sixteenths.

The quota for the eye of the volute is 2.

Quota	Factor	Proportion in Metric Measurement	Proportion in English Measurement	Quota	Factor	Proportion in Metric Measurement	Proportion in English Measurement
¾	.00146199	.0073	4.61	¾	.00185186	.0073	4.61
1	.00194932	.0097	6.14	1	.00246914	.0097	6.14
1½	.00292398	.0146	9.21	1½	.00370371	.0146	9.21
1¾	.00341131	.0171	10.74	1¾	.00432009	.0171	10.74
2	.00389864	.0195	12.28	2	.00493828	.0195	12.28
2¼	.00438597	.0219	13.81	2¼	.00555556	.0219	13.81
2½	.00487330	.0244	15.35	2½	.00617284	.0244	15.35
3	.00584796	.0292	18.42	3	.00740741	.0292	18.42
3½	.00682262	.0341	21.49	3½	.00864198	.0341	21.49
4	.00779728	.0390	24.56	4	.00987655	.0390	24.56
4½	.00877193	.0439	27.63	4½	.0111112	.0439	27.63
5	.00974659	.0487	30.70	5	.0123457	.0487	30.70
5½	.0107213	.0536	33.77	5½	.0135803	.0536	33.77
6	.0116960	.0585	36.84	6	.0148149	.0585	36.84
7	.0136453	.0682	42.98	7	.0172840	.0682	42.98
7¼	.0141326	.0707	44.51	7¼	.0179013	.0707	44.51
7½	.0146199	.0731	46.05	7½	.0185186	.0731	46.05
8	.0155946	.0780	49.12	8	.0197531	.0780	49.12
8½	.0165693	.0828	52.19	8½	.0209877	.0828	52.19
9	.0175439	.0877	55.26	9	.0222223	.0877	55.26
9½	.0185186	.0926	58.33	9½	.0234568	.0926	58.33
9¾	.0190059	.0950	59.86	9¾	.0240741	9.50	59.86
10	.0194932	.0975	61.40	10	.0246914	.0975	61.40
10½	.0204679	.1023	64.47	10½	.0259260	.1023	64.47
11	.0214425	.1072	67.54	11	.0271605	.1072	67.54
11½	.0224172	.1121	70.61	11½	.0283951	.1121	70.61
12	.0233919	.1170	73.68	12	.0296297	.1170	73.68
12½	.0243665	.1218	76.75	12½	.0308642	.1218	76.75
14	.0272905	.1365	85.95	14	.0345680	.1365	85.95
15	.0292398	.1462	92.09	15	.0370371	.1462	92.09
16	.0311891	.1559	98.23	16	.0395062	.1559	98.23
16¼	.0316765	.1584	99.77	16¼	.0401235	.1584	99.77
16½	.0321638	.1608	101.30	16½	.0407408	.1608	101.30
17	.0331385	.1657	104.37	17	.0419757	.1657	104.37
17½	.0341131	.1706	107.44	17½	.0432099	.1706	107.44
18	.0350878	.1754	110.51	18	.0444445	.1754	110.51
19½	.0380117	.1901	119.72	19½	.0481482	.1901	119.72
20	.0389864	.1949	122.79	20	.0493828	.1949	122.79
21	.0409357	.2047	128.93	21	.0518519	.2047	128.93
22	.0428850	.2144	135.07	22	.0543210	.2144	135.07
23	.0448344	.2242	141.23	23	.0567902	.2242	141.23
24½	.0477583	.2388	150.42	24½	.0604939	.2388	150.42
24¾	.0482457	.2412	151.95	24¾	.0611112	24.12	151.95
25	.0487330	.2437	153.49	25	.0617284	.2437	153.49
26½	.0516570	.2583	162.70	26½	.0654321	.2582	162.70
27	.0526316	.2632	165.77	27	.0666667	.2632	165.77
29	.0565303	.2827	178.05	29	.0716050	.2827	178.05

Problem Thirteen

SIMPLE INTERCOLUMNIATION WITH THE IONIC ORDER. (Antique)

(Metric Measurement)

(Without the Pedestal)

145.　　　　　The height of this Order is 3.000 meters.　　　　　**PLATE XVII**

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Meters	Factor	Meters	Factor	Meters
Order	Entablature	.200000	.6000	.0888889	.2667	.125926	.3778
						.0370371	.1111
						.0444445	.1333
	Column	.800000	2.4000				
			3.0000				
Entablature	Cornice	.0777778	.2333	.0888889	.2667	.125926	.3778
	Frieze	.0666667	.2000			.0370371	.1111
	Architrave	.0555556	.1667	.0123457	.0370	.0493828	.1481
			.6000				
Column	Capital	.0370371	.1111	.0123457	.0370	.0493828	.1481
						.0370371	.1111
	Shaft	.718519	2.1556			.0444445	.1333
	Base	.0444445	.1333	.0172840	.0519	.0617284	.1852
			2.4000				
			3.0000				

Simple Ionic Intercolumniation.

Height of the Order is 3.000 meters.

Distance From Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening	
Factor	Meters	Factor	Meters	Factor	Meters	Factor	Meters
.288889	.8667	.200000	.6000	.200000	.6000	.800000	2.4000

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Meters	Factor	Meters	Factor	Meters
Cornice	Fillet	.00370371	.0111	.0888889	.2667	.125926	.3778
	Cyma Recta	.0123457	.0370				
	Fillet	.00123457	.0037	.0753087	.2259	.112346	.3370
				.0740741	.2222	.111112	.3333
	Cyma Reversa	.00493828	.0148	.0703704	.2111	.107408	.3222
	Corona	.0148149	.0444	.0691359	.2074	.106173	.3185
				.0345680	.1037	.0716050	.2148
	Ovolo	.00987655	.0296	.0246914	.0741	.0617284	.1852
	Reed	.00246914	.0074	.0259260	.0778	.0629630	.1889
	Fillet	.00123457	.0037	.0246914	.0741	.0617284	.1852
	Dentils	.0148149	.0444	.0234568	.0704	.0604939	.1815
	Fillet	.00246914	.0074	.0135803	.0407	.0506173	.1519
				.0123457	.0370	.0493828	.1481
	Cyma Reversa	.00987655	.0296	.00185186	.0056	.0388889	.1167
			.2331				
Frieze	Frieze	.0666667	.2000		—	.0370371	.1111
Architrave	Fillet	.00370371	.0111	.0123457	.0370	.0493828	.1481
				.0111112	.0333	.0481482	.1444
	Cyma Reversa	.00740741	.0222	.00493828	.0148	.0419754	.1259
	Fascia³	.0185186	.0556	.00370371	.0111	.0407408	.1222
	Fascia²	.0148149	.0444	.00185186	.0056	.0388889	.1167
	Fascia¹	.0111112	.0333			.0370371	.1111
			.1666				
Capital	Fillet	.00246914	.0074	.0123457	.0370	.0493828	.1481
				.0111112	.0333	.0481482	.1444
	Cyma Reversa	.00493828	.0148	.00740741	.0222	.0444445	.1333
	Fillet	.00246914	.0074	.00617284	.0185	.0432099	.1296
	Channel	.00740741	.0222			.0370371	.1111
				.0172840	.0519	.0543210	.1630
	Ovolo	.0123457	.0370	.00493828	.0148	.0419754	.1259
	Astragal	.00493828	.0148	.00740741	.0222	.0444445	.1333
	Fillet	.00246914	.0074	.00493828	.0148	.0419754	.1259
			.1110				
Shaft	Astragal	.00493828	.0148 }*	.00740741	.0222	.0444445	.1333
	Fillet	.00246914	.0074 }	.00493828	.0148	.0419754	.1259
	Shaft	.718519	2.1556				
	Fillet	.00370371	.0111 }	.00493828	.0148	.0493828	.1481
	Upper .Diam	.0740741	.2222 }*			.0370371	.1111
	Lower Diam	.0888889	.2667 }			.0444445	.1333
			2.1556				
Base	Torus	.0123457	.0370	.0123457	.0370	.0567902	.1704
	Fillet	.000617284	.0019	.00617284	.0185	.0506173	.1519
	Upper Scotia	.00493828	.0148				
	Fillet	.000617284	.0019	.0111112	.0333	.0555556	.1667
	2 Reeds	.00493828	.0148	.0123457	.0370	.0567902	.1704
	Fillet	.000617284	.0019	.0111112	.0333	.0555556	.1667
	Lower Scotia	.00493828	.0148				
	Fillet	.000617284	.0019	.0160494	.0481	.0604939	.1815
	Plinth	.0148149	.0444	.0172840	.0519	.0617284	.1852
			.1334				
			2.9997				

Problem Thirteen

SIMPLE INTERCOLUMNIATION WITH THE IONIC ORDER. (Antique)

(Without the Pedestal)

(English Measurement)

146.

The height of this Order is 3.000 m. × 629.92 = 1889.76 sixteenths.

PLATE XVII

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Order	Entablature	.200000	377.95	.0888889	167.98	.125926	237.97
						.0370371	69.99
	Column	.800000	1511.81			.0444445	83.99
			1889.76				
Entablature	Cornice	.0777778	146.98	.0888889	167.98	.125926	237.97
	Frieze	.0666667	125.98			.0370371	69.99
	Architrave	.0555556	104.99	.0123457	23.33	.0493828	93.32
			377.95				
Column	Capital	.0370371	69.99	.0123457	23.33	.0493828	93.32
						.0370371	69.99
						.0444445	83.99
	Shaft	.718519	1357.83			.0617284	116.65
	Base	.0444445	83.99	.0172840	32.66		
			1511.81				
			1889.76				

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Cornice	Fillet	.00370371	7.00	.0888889	167.98	.125926	237.97
	Cyma Recta....	.0123457	23.33				
	Fillet	.00123457	2.33	.0753087	142.32	.112346	212.31
				.0740741	139.98	.111112	209.98
	Cyma Reversa..	.00493828	9.33	.0703704	132.98	.107408	202.98
	Corona	.0148149	28.00	.0691359	130.65	.106173	200.64
				.0345680	65.33	.0716050	135.32
	Ovolo	.00987655	18.66	.0246914	46.66	.0617284	116.65
	Reed	.00246914	4.67	.0259260	48.99	.0629630	118.98
	Fillet	.00123457	2.33	.0246914	46.66	.0617284	116.65
	Dentils	.0148149	28.00	.0234568	44.33	.0604939	114.32
	Fillet	.00246914	4.67	.0135803	25.66	.0506173	95.65
				.0123457	23.33	.0493828	93.32
	Cyma Reversa..	.00987655	18.66	.00185186	3.50	.0388889	73.49
			146.98				
Frieze	Frieze	.0666667	125.98			.0370371	69.99
Architrave	Fillet	.00370371	7.00	.0123457	23.33	.0493828	93.32
				.0111112	21.00	.0481482	90.99
	Cyma Reversa..	.00740741	14.00	.00493828	9.33	.0419754	79.32
	Fascia[3]	.0185186	35.00	.00370371	7.00	.0407408	76.99
	Fascia[2]	.0148149	28.00	.00185186	3.50	.0388889	73.49
	Fascia[1]	.0111112	21.00			.0370371	69.99
			105.00				
Capital	Fillet	.00246914	4.67	.0123457	23.33	.0493828	93.32
				.0111112	21.00	.0481482	90.99
	Cyma Reversa..	.00493828	9.33	.00740741	14.00	.0444445	83.99
	Fillet	.00246914	4.67	.00617284	11.67	.0432099	81.66
	Channel	.00740741	14.00			.0370371	69.99
				.0172840	32.66	.0543210	102.65
	Ovolo	.0123457	23.33	.00493828	9.33	.0419754	79.32
	Astragal	.00493828	9.33	.00740741	14.00	.0444445	83.99
	Fillet	.00246914	4.67	.00493828	9.33	.0419754	79.32
			70.00				
Shaft	Astragal	.00493828	9.33}*	.00740741	14.00	.0444445	83.99
	Fillet	.00246914	4.67}	.00493828	9.33	.0419754	79.32
	Shaft	.718519	1357.83				
	Fillet	.00370371	7.00}	.00493828	9.33	.0493828	93.32
	Upper Diam....	.0740741	139.98}*			.0370371	69.99
	Lower Diam....	.0888889	167.98}			.0444445	83.99
			1357.83				
Base	Torus	.0123457	23.33	.0123457	23.33	.0567902	107.32
	Fillet	.000617284	1.17	.00617284	11.67	.0506173	95.65
	Upper Scotia...	.00493828	9.33			.0555556	104.99
	Fillet	.000617284	1.17	.0111112	21.00	.0567902	107.32
	2 Reeds........	.00493828	9.33	.0123457	23.33		
	Fillet	.000617284	1.17	.0111112	21.00	.0555556	104.99
	Lower Scotia...	.00493828	9.33				
	Fillet	.000617284	1.17	.0160494	30.33	.0604939	114.32
	Plinth	.0148149	28.00	.0172840	32.66	.0617284	116.65
			84.00				
			1889.79				

Simple Ionic Intercolumniation

Height of the Order is 1889.76 sixteenths

Distance From Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening	
Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
.288889	545.93	.200000	377.95	.200000	377.95	.800000	1511.81

Problem Fourteen

ARCADE INTERCOLUMNIATION WITH THE IONIC ORDER WITHOUT THE PEDESTAL. (Antique)

(Metric Measurement)

147. The height of this Order is 2.3684 meters. **PLATE XVIII**

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Meters	Factor	Meters	Factor	Meters
Order	Entablature	.200000	.4737	.0888889	.2105	.125926	.2982
						.0370371	.0877
	Column	.800000	1.8947			.0444445	.1053
			2.3684				
Entablature	Cornice	.0777778	.1842	.0888889	.2105	.125926	.2982
	Frieze	.0666667	.1579			.0370371	.0877
	Architrave	.0555556	.1316	.0123457	.0292	.0493828	.1170
			.4737				
Column	Capital	.0370371	.0877	.0123457	.0292	.0493828	.1170
						.0370371	.0877
	Shaft	.718519	1.7017			.0444445	.1053
	Base	.0444445	.1053	.0172840	.0409	.0617284	.1462
			1.8947				

Ionic Arcade Intercolumniation

Height of the Order is 2.3684 meters

Distance From Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening		Height of Impost	
Factor	Meters	Factor	Meters	Factor	Meters	Factor	Meters	Factor	Meters
.511112	1.2105	.422223	1.0000	.377778	.8947	.755556	1.7895	.5666667	1.3421
*.533334	1.2631	.444445	1.0526						

*Factors for increased width of "alette."

Impost and Archivolt of Arcade

	Name of Moulding	Height		Projection	
		Factor	Meters	Factor	Meters
Impost F=.0444445	Fillet	.00246914	.0059	.0148149	.0351
				.0135803	.0322
	Cyma Reversa.....	.00370371	.0088	.0104939	.0249
	Fascia²	.00740741	.0175	.00987655	.0234
				.00864198	.0205
	Ovolo	.00493828	.0117	.00370371	.0088
	Reed	.00246914	.0059	.00493828	.0117
	Fillet	.00123457	.0029	.00370371	.0088
	Fascia²	.0123457	.0292	.00246914	.0059
	Fascia¹	.00987655	.0234	.00123457	.0029
			.1053		
Archivolt F=.0222223	Fillet	.00370371	.0088	.00740741	.0175
				.00617284	.0146
	Cyma Reversa.....	.00493828	.0117	.00123457	.0029
	Fascia	.0135803	.0322		
			.0527		

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Meters	Factor	Meters	Factor	Meters
Cornice	Fillet	.00370371	.0088	.0888889	.2105	.125926	.2982
	Cyma Recta.......	.0123457	.0292				
	Fillet	.00123457	.0029	.0753087	.1784	.112346	.2661
				.0740741	.1754	.111112	.2631
	Cyma Reversa.....	.00493828	.0117	.0703704	.1667	.107408	.2544
	Corona	.0148149	.0351	.0691359	.1637	.106173	.2515
				.0345680	.0819	.0716050	.1696
	Ovolo	.00987655	.0234	.0246914	.0585	.0617284	.1462
	Reed	.00246914	.0059	.0259260	.0614	.0629630	.1491
	Fillet	.00123457	.0029	.0246914	.0585	.0617284	.1462
	Dentils	.0148149	.0351	.0234568	.0556	.0604939	.1433
	Fillet	.00246914	.0059	.0135803	.0322	.0506173	.1199
				.0123457	.0292	.0493828	.1170
	Cyma Reversa.....	.00987655	.0234	.00185186	.0044	.0388889	.0921
			.1843				
Frieze	Frieze	.0666667	.1579			.0370371	.0877
Architrave	Fillet	.00370371	.0088	.0123457	.0292	.0493828	.1170
				.0111112	.0263	.0481482	.1140
	Cyma Reversa.....	.00740741	.0175	.00493828	.0117	.0419754	.0994
	Fascia³	.0185186	.0439	.00370371	.0088	.0407408	.0965
	Fascia²	.0148149	.0351	.00185186	.0044	.0388889	.0921
	Fascia¹	.0111112	.0263			.0370371	.0877
			.1316				
Capital	Fillet	.00246914	.0059	.0123457	.0292	.0493828	.1170
				.0111112	.0263	.0481482	.1140
	Cyma Reversa.....	.00493828	.0117	.00740741	.0175	.0444445	.1053
	Fillet	.00246914	.0059	.00617284	.0146	.0432099	.1023
	Channel	.00740741	.0175			.0370371	.0877
				.0172840	.0409	.0543210	.1287
	Ovolo	.0123457	.0292	.00493828	.0117	.0419754	.0994
	Astragal	.00493828	.0117	.00740741	.0175	.0444445	.1053
	Fillet	.00246914	.0059	.00493828	.0117	.0419754	.0994
			.0878				
Shaft	Astragal	.00493828	.0117}*	.00740741	.0175	.0444445	.1053
	Fillet	.00246914	.0059}	.00493828	.0117	.0419754	.0994
	Shaft	.718519	1.7017				
	Fillet	.00370371	.0088}	.00493828	.0117	.0493828	.1170
	Upper Diam......	.0740741	.1754}*			.0370371	.0877
	Lower Diam......	.0888889	.2105}			.0444445	.1053
			1.7017				
Base	Torus	.0123457	.0292	.0123457	.0292	.0567902	.1345
	Fillet	.000617284	.0015	.00617284	.0146	.0506173	.1199
	Upper Scotia......	.00493828	.0117				
	Fillet	.000617284	.0015	.0111112	.0263	.0555556	.1316
	2 Reeds.........	.00493828	.0117	.0123457	.0292	.0567902	.1345
	Fillet	.000617284	.0015	.0111112	.0263	.0555556	.1316
	Lower Scotia......	.00493828	.0117				
	Fillet	.000617284	.0015	.0160494	.0380	.0604939	.1433
	Plinth	.0148149	.0351	.0172840	.0409	.0617284	.1462
			.1054				
			2.3687				

Problem Fourteen

ARCADE INTERCOLUMNIATION WITH THE IONIC ORDER WITHOUT THE PEDESTAL. (Antique)

(English Measurement)

148. The height of this Order is 2.3684 m. × 629.92 = 1491.90 sixteenths. **PLATE XVIII**

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Order	Entablature	.200000	298.38	.0888889	132.61	.125926	187.87
						.0370371	55.26
	Column	.800000	1193.52			.0444445	63.31
			1491.90				
Entablature	Cornice	.0777778	116.04	.0888889	132.61	.125926	187.87
	Frieze	.0666667	99.46			.0370371	55.26
	Architrave	.0555556	82.88	.0123457	18.42	.0493828	73.67
			298.38				
Column	Capital	.0370371	55.26	.0123457	18.42	.0493828	73.67
						.0370371	55.26
						.0444445	66.31
	Shaft	.718519	1071.96				
	Base	.0444445	66.31	.0172840	25.79	.0617284	92.09
			1193.53				
			1491.91				

Ionic Arcade Intercolumniation

Height of the Order is .1491.90 sixteenths

Distance From Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening		Height of Impost	
Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
.511112	762.53	.422223	629.91	.377778	563.61	.755556	1127.21	.566667	845.41
*.533334	795.68	.444445	663.09						

*Factors for increased width of "alette."

Impost and Archivolt of Arcade

	Name of Moulding	Height		Projection	
		Factor	Six-teenths	Factor	Six-teenths
	Fillet	.00246914	3.68	.0148149	22.10
				.0135803	20.26
Impost F = .0444445	Cyma Reversa..	.00370371	5.53	.0104939	15.66
	Fascia³	.00740741	11.05	.00987655	14.73
				.00864198	12.89
	Ovolo	.00493828	7.37	.00370371	5.53
	Reed	.00246914	3.68	.00493828	7.37
	Fillet	.00123457	1.84	.00370371	5.53
	Fascia²	.0123457	18.42	.00246914	3.68
	Fascia¹	.00987655	14.74	.00123457	1.84
			66.31		
Archivolt F = .0222223	Fillet	.00370371	5.53	.00740741	11.05
				.00617284	9.21
				.00123457	1.84
	Cyma Reversa..	.00493828	7.37		
	Fascia	.0135803	20.26		
			33.16		

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Cornice	Fillet	.00370371	5.53	.0888889	132.61	.125926	187.87
	Cyma Recta....	.0123457	18.42				
	Fillet	.00123457	1.84	.0753087	112.35	.112346	167.61
				.0740741	110.51	.111112	165.77
	Cyma Reversa..	.00493828	7.37	.0703704	104.99	.107408	160.24
	Corona	.0148149	22.10	.0691359	103.14	.106173	158.40
				.0345680	51.57	.0716050	106.83
	Ovolo	.00987655	14.73	.0246914	36.84	.0617284	92.09
	Reed	.00246914	3.68	.0259260	38.68	.0629630	93.93
	Fillet	.00123457	1.84	.0246914	36.84	.0617284	92.09
	Dentils	.0148149	22.10	.0234568	35.00	.0604939	90.25
	Fillet	.00246914	3.68	.0135803	20.26	.0506173	75.52
				.0123457	18.42	.0493828	73.67
	Cyma Reversa..	.00987655	14.73	.00185186	2.76	.0388889	58.02
			116.02				
Frieze	Frieze	.0666667	99.46			.0370371	55.26
Architrave	Fillet	.00370371	5.53	.0123457	18.42	.0493828	73.67
				.0111112	16.58	.0481482	71.83
	Cyma Reversa..	.00740741	11.05	.00493828	7.37	.0419754	62.62
	Fascia³	.0185186	27.63	.00370371	5.53	.0407408	60.78
	Fascia²	.0148149	22.10	.00185186	2.76	.0388889	58.02
	Fascia¹	.0111112	16.58			.0370371	55.26
			82.89				
Capital	Fillet	.00246914	3.68	.0123457	18.42	.0493828	73.67
				.0111112	16.58	.0481482	71.83
	Cyma Reversa..	.00493828	7.37	.00740741	11.05	.0444445	66.31
	Fillet	.00246914	3.68	.00617284	9.21	.0432099	64.46
	Channel	.00740741	11.05			.0370371	55.26
				.0172840	25.79	.0543210	81.04
	Ovolo	.0123457	18.42	.00493828	7.37	.0419754	62.62
	Astragal	.00493828	7.37	.00740741	11.05	.0444445	66.31
	Fillet	.00246914	3.68	.00493828	7.37	.0419754	62.62
			55.25				
Shaft	Astragal	.00493828	7.37 }*	.00740741	11.05	.0444445	66.31
	Fillet	.00246914	3.68 }	.00493828	7.37	.0419754	62.62
	Shaft	.718519	1071.96				
	Fillet	.00370371	5.53 }	.00493828	7.37	.0493828	73.67
	Upper Diam....	.0740741	110.51 }*			.0370371	55.26
	Lower Diam....	.0888889	132.61			.0444445	63.31
			1071.96				
Base	Torus	.0123457	18.42	.0123457	18.42	.0567902	84.73
	Fillet	.000617284	0.92	.00617284	9.21	.0506173	75.52
	Upper Scotia...	.00493828	7.37				
	Fillet	.000617284	0.92	.0111112	16.58	.0555556	82.88
	2 Reeds........	.00493828	7.37	.0123457	18.42	.0567902	84.73
	Fillet	.000617284	0.92	.0111112	16.58	.0555556	82.88
	Lower Scotia...	.00493828	7.37				
	Fillet	.000617284	0.92	.0160494	23.94	.0604939	90.25
	Plinth	.0148149	22.10	.0172840	25.79	.0617284	92.09
			66.31				
			1491.83				

Problem Fifteen

ARCADE INTERCOLUMNIATION WITH THE IONIC ORDER WITH THE PEDESTAL. (Modern)

(Metric Measurement)

149. The height of this Order is 3.000 meters. **PLATE XIX**

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Meters	Factor	Meters	Factor	Meters
Order	Entablature	.157895	.4737	.0740741	.2222	.103314	.3099
						.0292398	.0877
	Column	.631579	1.8947			.0350878	.1053
	Pedestal	.210527	.6316	.0194932	.0585	.0682262	.2047
			3.0000				
Entablature	Cornice	.0614036	.1842	.0740741	.2222	.103314	.3099
	Frieze	.0526316	.1579			.0292398	.0877
	Architrave	.0438597	.1316	.00974659	.0292	.0389864	.1170
			.4737				
Column	Capital	.0292398	.0877	.00974659	.0292	.0487330	.1462
						.0292398	.0877
	Shaft	.567252	1.7018			.0350878	.1053
	Base	.0350878	.1053	.0136453	.0409	.0487330	.1462
			1.8940				
Pedestal	Cap	.0175439	.0526	.0194932	.0585	.0682260	.2047
	Dado	.175439	.5263			.0487330	.1462
	Basement	.0175439	.0526	.0155946	.0468	.0643275	.1930
			.6315				
			3.0000				

Ionic Arcade Intercolumniation

Height of the Order is 3.000 meters.

Distance From Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening		Height of Impost	
.526316	1.5789	.456141	1.3684	.385965	1.1579	.771930	2.3158	.578948	1.7368

Impost and Archivolt of Arcade

	Name of Moulding	Height		Projection	
		Factor	Meters	Factor	Meters
Impost F = .0350878	Fillet	.00194932	.0058	.0116960	.0351
				.0107213	.0322
	Cyma Reversa	.00292398	.0088	.00828462	.0249
	Fascia³	.00584796	.0175	.00779728	.0234
				.00682262	.0205
	Ovolo	.00389864	.0117	.00292398	.0088
	Reed	.00194932	.0058	.00389864	.0117
	Fillet	.000974659	.0029	.00292398	.0088
	Fascia²	.00974659	.0292	.00194932	.0058
	Fascia¹	.00779728	.0234	.000974659	.0029
			.1051		
Archivolt F = .0350878	Fillet	.00292398	.0088	.00877193	.0263
				.00779728	.0234
	Cyma Reversa	.00584796	.0175	.00292398	.0088
	Fascia²	.0146199	.0439	.00146199	.0044
	Fascia¹	.0116960	.0351		
			.1053		

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Meters	Factor	Meters	Factor	Meters
Cornice	Fillet	.00292398	.0088	.0740741	.2222	.103314	.3099
	Cyma Recta	.00779728	.0234				
	Fillet	.000974659	.0029	.0662769	.1988	.0955166	.2865
				.0653022	.1959	.0945420	.2836
	Cyma Reversa	.00243665	.0073	.0623782	.1871	.0916180	.2749
	Corona	.0116960	.0351	.0614036	.1842	.0906433	.2719
				.0609162	.1827	.0901560	.2705
	Cyma Reversa	.00194932	.0058	.0579923	.1740	.0872320	.2617
	Modillion	.00877193	.0263	.0575049	.1725	.0867447	.2602
	Fillet	.000974659	.0029	.0258285	.0775	.0550683	.1652
	Ovolo	.00730995	.0219	.0248539	.0746	.0540956	.1623
	Fillet	.000974659	.0029	.0175439	.0526	.0467837	.1404
	Dentils	.00877193	.0263	.0165693	.0497	.0458090	.1374
	Fillet	.000974659	.0029	.00877193	.0263	.0380117	.1140
				.00779728	.0234	.0370371	.1111
	Cyma Reversa	.00584796	.0175	.00292398	.0088	.0321638	.0965
			.1840				
Frieze	Fillet	.00194932	.0058	.00194932	.0058	.0311891	.0936
	Frieze	.0506823	.1521			.0292398	.0877
			.1579				
Architrave	Fillet	.00292398	.0088	.00974659	.0292	.0389864	.1170
				.00877193	.0263	.0380117	.1140
	Cyma Reversa	.00487330	.0146	.00292398	.0088	.0321638	.0965
	Reed	.00194932	.0058	.00389864	.0117	.0331385	.0994
	Fascia³	.0146199	.0439	.00292398	.0088	.0321638	.0965
	Fascia²	.0116960	.0351	.00146199	.0044	.0307018	.0921
	Fascia¹	.00779728	.0234			.0292398	.0877
			.1316				
Capital	Ovolo	.00341131	.0102	.0190059	.0570	.0482457	.1447
	Reed	.00416199	.0044	.0155946	.0468	.0448344	.1345
	Abacus	.00682262	.0205	.0116960	.0351	.0409357	.1228
	Channel	.00389864	.0117			.0292398	.0877
				.0116960	.0351	.0409357	.1228
	Ovolo	.00779728	.0234	.00389864	.0117	.0331385	.0994
	Astragal	.00389864	.0117	.00584796	.0175	.0350878	.1053
	Fillet	.00194932	.0058	.00389864	.0117	.0331385	.0994
			.0875				
Shaft	Astragal	.00389864	.0117 *	.00584796	.0175	.0350878	.1053
	Fillet	.00194932	.0058	.00389864	.0117	.0331385	.0994
	Shaft	.567252	1.7018				
	Fillet	.00292398	.0088	.00389864	.0117	.0389864	.1170
	Upper Diam.	.0584796	.1754 *			.0292398	.0877
	Lower Diam.	.0701755	.2105			.0350878	.1053
			1.7018				
Base	Upper Tours	.00682262	.0205	.00828461	.0249	.0433724	.1301
	Fillet	.000974659	.0029	.00487330	.0146	.0399611	.1199
	Scotia	.00584796	.0175				
	Fillet	.000974659	.0029	.00779728	.0234	.0428850	.1287
	Lower Torus	.00877193	.0263	.0136453	.0409	.0487330	.1462
	Plinth	.0116960	.0351	.0136453	.0409	.0487330	.1462
			.1052				
Cap	Fillet	.000974659	.0029	.0194932	.0585	.0682262	.2047
				.0185186	.0556	.0672515	.2018
	Cyma Reversa	.00292398	.0088	.0160819	.0482	.0648149	.1944
	Corona	.00584796	.0175	.0155946	.0468	.0643275	.1930
				.00974659	.0292	.0584796	.1754
	Ovolo	.00584796	.0175	.00389864	.0117	.0526316	.1579
	Reed	.00194932	.0058	.00487330	.0146	.0536063	.1608
			.0525				
Dado	Fillet	.00194932	.0058	.00292398	.0088	.0516570	.1550
	Dado	.171540	.5146			.0487330	.1462
	Fillet	.00194932	.0058	.00389864	.0117	.0526316	.1579
			.5262				
Basement	Reed	.00292398	.0088	.00584796	.0175	.0545809	.1637
				.00389864	.0117	.0526316	.1579
	Cyma Recta	.00584796	.0175	.0136453	.0409	.0623782	.1871
	Fillet	.000974659	.0029	.0136453	.0409	.0623782	.1871
	Plinth	.00779728	.0234	.0155946	.0468	.0643275	.1930
			.0526				
			2.9993				

Problem Fifteen

ARCADE INTERCOLUMNIATION WITH THE IONIC ORDER WITH THE PEDESTAL. (Modern)

(English Measurement)

150. The height of this Order is 3.000 m. × 629.92 = 1889.76 sixteenths. **PLATE XIX**

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Order	Entablature	.157895	298.38	.0740741	139.98	.103314	195.24
						.0292398	55.26
	Column	.631579	1193.52			.0350878	66.31
	Pedestal	.210527	397.85	.0194932	36.84	.0682262	128.93
			1889.75				
Entablature	Cornice	.0614036	116.04	.0740741	139.98	.103314	195.24
	Frieze	.0526316	99.46			.0292398	55.26
	Architrave	.0438597	82.88	.00974659	18.42	.0389864	73.67
			298.38				
Column	Capital	.0292398	55.26	.00974659	18.42	.0487330	92.09
						.0292398	55.26
	Shaft	.567252	1071.96			.0350878	66.31
	Base	.0350878	66.31	.0136453	25.79	.0487330	92.09
			1193.53				
Pedestal	Cap	.0175439	33.15	.0194932	36.84	.0682262	128.93
						.0487330	92.09
	Dado	.175439	331.54				
	Basement	.0175439	33.15	.0155946	29.47	.0643275	121.56
			397.84				
			1889.75				

Ionic Arcade Intercolumniation

Height of Order is 1889.76 sixteenths.

Distance From Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening		Height of Impost	
Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
.526316	994.61	.456141	862.00	.385965	729.38	.771930	1458.76	.578948	1094.07

Impost and Archivolt of Arcade

	Name of Moulding	Height		Projection	
		Factor	Six-teenths	Factor	Six-teenths
Impost F = .0350878	Fillet	.00194932	3.68	.0116960	22.10
				.0107213	20.26
	Cyma Reversa	.00292398	5.53	.00828461	15.66
	Fascia³	.00584796	11.05	.00779728	14.73
				.00682262	12.89
	Ovolo	.00389864	7.37	.00292398	5.53
	Reed	.00194932	3.68	.00389864	7.37
	Fillet	.000974659	1.84	.00292398	5.53
	Fascia²	.00974659	18.42	.00194932	3.68
	Fascia¹	.00779728	14.74	.000974659	1.84
			66.31		
Archivolt F = .0350878	Fillet	.00292398	5.53	.00877193	16.58
				.00779728	14.73
	Cyma Reversa	.00584796	11.05	.00292398	5.53
	Fascia²	.0146199	27.63	.00146199	2.76
	Fascia¹	.0116960	22.10		
			63.31		

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Cornice	Fillet	.00292398	5.53	.0740741	139.98	.103314	195.24
	Cyma Recta	.00779728	14.73				
	Fillet	.000974659	1.84	.0662769	125.25	.0955166	180.50
				.0653022	123.41	.0945420	178.66
	Cyma Reversa	.00243665	4.60	.0623782	117.88	.0916180	173.14
	Corona	.0116960	22.10	.0614036	116.04	.0906433	171.29
				.0609162	115.12	.0901560	170.37
	Cyma Reversa	.00194932	3.68	.0579923	109.59	.0872320	164.85
	Modillion	.00877193	16.58	.0575049	108.67	.0867447	163.93
	Fillet	.000974659	1.84	.0258285	48.81	.0550683	104.07
	Ovolo	.00730995	13.81	.0248539	46.97	.0540956	102.23
	Fillet	.000974659	1.84	.0175439	33.15	.0467837	88.41
	Dentils	.00877193	16.58	.0165693	31.31	.0458090	86.57
	Fillet	.000974659	1.84	.00877193	16.58	.0380117	71.83
				.00779728	14.73	.0370371	69.98
	Cyma Reversa	.00584796	11.05	.00292398	5.53	.0321638	60.78
			116.02				
Frieze	Fillet	.00194932	3.68	.00194932	3.68	.0311891	58.94
	Frieze	.0506823	95.78			.0292398	55.26
			99.46				
Architrave	Fillet	.00292398	5.53	.00974659	18.42	.0389864	73.67
				.00877193	16.58	.0380117	71.83
	Cyma Reversa	.00487330	9.21	.00292398	5.53	.0321638	60.78
	Reed	.00194932	3.68	.00389864	7.37	.0331385	62.62
	Fascia³	.0146199	27.63	.00292398	5.53	.0321638	60.78
	Fascia²	.0116960	22.10	.00146199	2.76	.0307018	58.02
	Fascia¹	.00779728	14.73			.0292398	55.26
			82.88				
Capital	Ovolo	.00341131	6.45	.0190059	35.92	.0482457	91.17
	Reed	.00146199	2.76	.0155946	29.47	.0448344	84.73
	Abacus	.00682262	12.89	.0116960	22.10	.0409357	77.36
	Channel	.00389864	7.37			.0292398	55.26
				.0116960	22.10	.0409357	77.36
	Ovolo	.00779728	14.73	.00389864	7.37	.0331385	62.62
	Astragal	.00389864	7.37	.00584796	11.05	.0350878	66.31
	Fillet	.00194932	3.68	.00389864	7.37	.0331385	62.62
			55.24				
Shaft	Astragal	.00389864	7.37 ⎱*	.00584796	11.05	.0350878	66.31
	Fillet	.00194932	3.68 ⎰	.00389864	7.37	.0331385	62.62
	Shaft	.567252	1071.96				
	Fillet	.00292398	5.53 ⎱	.00389864	7.37	.0389864	73.67
	Upper Diam.	.0584796	110.51 ⎰*			.0292398	55.26
	Lower Diam.	.0701755	132.61			.0350878	66.31
			1071.96				
Base	Upper Torus	.00682262	12.89	.00828461	15.66	.0433724	81.96
	Fillet	.000974659	1.84	.00487330	9.21	.0399611	75.52
	Scotia	.00584796	11.05				
	Fillet	.000974659	1.84	.00779728	14.73	.0428850	81.04
	Lower Torus	.00877193	16.58	.0136453	25.79	.0487330	92.10
	Plinth	.0116960	22.10	.0136453	25.79	.0487330	92.10
			66.30				
Cap	Fillet	.000974659	1.84	.0194932	36.84	.0682262	128.93
				.0185186	35.00	.0672515	127.09
	Cyma Reversa	.00292398	5.53	.0160819	30.39	.0648149	122.50
	Corona	.00584796	11.05	.0155946	29.47	.0643275	121.56
				.00974659	18.42	.0584796	110.51
	Ovolo	.00584796	11.05	.00389864	7.37	.0526316	99.46
	Reed	.00194932	3.68	.00487330	9.21	.0536063	101.30
			33.15				
Dado	Fillet	.00194932	3.68	.00292398	5.53	.0516570	97.62
	Dado	.171540	324.17			.0487330	92.10
	Fillet	.00194932	3.68	.00389864	7.37	.0526316	99.46
			331.53				
Basement	Reed	.00292398	5.53	.00584796	11.05	.0545809	103.14
				.00389864	7.37	.0526316	99.46
	Cyma Recta	.00584796	11.05	.0136453	25.79	.0623782	117.88
	Fillet	.000974659	1.84	.0136453	25.79	.0623782	117.88
	Plinth	.00779728	14.73	.0155946	29.47	.0643275	121.56
			33.15				
			1889.69				

PART THIRTEEN

Problem Sixteen

CAPITAL OF THE CORINTHIAN ORDER WITH THE PEDESTAL

(Metric Measurement)   (English Measurement)   **PLATE XX**

151.   The height of this Order is 5.000 meters.   The height of this Order is 5.000 m. × 629.92 = 3149.60 sixteenths.

Metric Measurement

Name of Moulding	Height Factor	Height Meters	Proj. Face Factor	Proj. Face Meters	Proj. Axis Factor	Proj. Axis Meters
Ovolo	.00350878	.0175	.0219299	.1097	.0482457	.2412
Fillet	.00175439	.0088	.0179826	.0899	.0442983	.2215
Abacus	.00526316	.0263	.0149123	.0746	.0412281	.2061
			.00701755	.0351	.0333334	.1667
Lip	.00350878	.0175	.0105264	.0526	.0368422	.1842
Cavetto	.0105264	.0526			.0368422	.1842
Channel	.00701755	.0351			.0263158	.1316
Drop of Upper Leaves	.00526316	.0263	.0201755	.1009	.0464913	.2325
Upper Leaves	.0157895	.0789				
Drop of Lower Leaves	.00526316	.0263	.0122808	.0614	.0385965	.1925
Lower Leaves	.0157895	.0789				
		.3682				

"Sommoscapo" (Upper Point of Shaft)

Astragal	.00350878	.0175	.00526316	.0263	.0315790	.1579
Fillet	.00175439	.0088	.00307018	.0154	.0293868	.1469
Shaft					.0263158	.1316

"Imoscapo" (Lower Point of Shaft)

Shaft					.0315790	.1579
Fillet	.00263158	.0132	.00350878	.0175	.0350878	.1754

Modern or Attic Base

Upper Torus	.00614036	.0307	.00745615	.0373	.0390351	.1952
Fillet	.000877193	.0044	.00438597	.0219	.0359650	.1798
Scotia	.00526316	.0263				
Fillet	.000877193	.0044	.00701755	.0351	.0385965	.1930
Lower Torus	.00789474	.0395	.0122808	.0614	.0438597	.2193
Plinth	.0105264	.0526	.0122808	.0614	.0438597	.2193
		.1579				

Capital F = .0736843 ; Base F = .0315790

English Measurement

Name of Moulding	Height Factor	Height Sixteenths	Proj. Face Factor	Proj. Face Sixteenths	Proj. Axis Factor	Proj. Axis Sixteenths
Ovolo	.00350878	11.05	.0219299	69.06	.0482457	151.95
Fillet	.00175439	5.53	.0179826	56.64	.0442983	139.52
Abacus	.00526316	16.58	.0149123	46.97	.0412281	129.85
			.00701755	22.10	.0333334	104.99
Lip	.00350878	11.05	.0105264	33.15	.0368422	116.04
Cavetto	.0105264	33.15			.0368422	116.04
Channel	.00701755	22.10			.0263158	82.83
Drop of Upper Leaves	.00526316	16.58	.0201755	63.54	.0464913	149.20
Upper Leaves	.0157895	49.73				
Drop of Lower Leaves	.00526316	16.58	.0122808	38.68	.0385965	124.33
Lower Leaves	.0157895	49.73				
		232.08				

"Sommoscapo"

Astragal	.00350878	11.05	.00526316	16.58	.0315790	99.46
Fillet	.00175439	5.53	.00307018	9.67	.0293868	92.56
Shaft					.0263158	82.83

"Imoscapo"

Shaft					.0315790	99.46
Fillet	.00263158	8.29	.00350878	11.05	.0350878	110.57

Modern or Attic Base

Upper Torus	.00614036	19.34	.00745615	23.48	.0390351	122.94
Fillet	.000877193	2.76	.00438597	13.81	.0359650	113.28
Scotia	.00526316	16.58				
Fillet	.000877193	2.76	.00701755	22.10	.0385965	121.56
Lower Torus	.00789474	24.87	.0122808	38.68	.0438597	138.14
Plinth	.0105264	33.15	.0122808	38.68	.0438597	138.14
		99.46				

Capital F = .0736843 ; Base F = .0315790

Problem Sixteen

CAPITAL OF THE CORINTHIAN ORDER

152.   This Problem illustrates how to use "Table Three," page 46, Art. 99.   **PLATE XX**

Order WITH the Pedestal

Height of Order = 5.000 meters × 629.92 = 3149.60 sixteenths.

Quota	Factor	Proportion in Metric Measurement	Proportion in English Measurement
½	.000877193	.0044	2.76
1	.00175439	.0088	5.53
1½	.00263158	.0132	8.29
1¾	.00307018	.0154	9.67
2	.00350878	.0175	11.05
2½	.00438597	.0219	13.81
3	.00526316	.0263	16.58
3½	.00614036	.0307	19.34
4	.00701755	.0351	22.10
4¼	.00745615	.0373	23.48
4½	.00789474	.0395	24.87
5	.00877193	.0439	27.63
6	.0105264	.0526	33.15
6½	.0114036	.0570	35.92
7	.0122808	.0614	38.68
7½	.0131579	.0658	41.44
8	.0140351	.0702	44.20
8¾	.0153509	.0768	48.35
9	.0157895	.0789	49.37
10	.0175439	.0877	55.26
10½	.0184211	.0921	58.02
11	.0192983	.0965	60.78
12	.0210527	.1053	66.31
12½	.0219299	.1097	69.06
13	.0228071	.1140	71.83
15	.0263158	.1316	82.88
16¾	.0293860	.1469	92.56
17	.0298246	.1491	93.94
17½	.0307018	.1535	96.70
18	.0315790	.1579	99.46
19	.0333334	.1667	104.99
20½	.0359650	.1798	113.28
21	.0368422	.1842	116.04
21½	.0377193	.1886	118.80
22	.0385965	.1930	121.56
23¾	.0416667	.2083	131.23
25	.0438597	.2193	138.14
25½	.0447369	.2237	140.90
26	.0456141	.2281	143.67
27½	.0482457	.2412	151.95
28	.0491229	.2456	154.72
32	.0561404	.2807	176.82
32½	.0570176	.2851	179.58
34	.0596492	.2982	187.87
36	.0631579	.3158	198.92
42	.0736843	.3684	232.08
½	.000877193	.0044	2.76
3¾	.00657895	.0329	20.72
8½	.0149123	.0746	46.97
10¼	.0179826	.0899	56.64
18¾	.0328948	.1645	103.60
25¼	.0442983	.2215	139.52
23½	.0412281	.2061	129.85
26½	.0464913	.2325	149.20

Order WITHOUT the Pedestal

Height of Order = 3.9474 meters × 629.92 = 2486.55 sixteenths.

Quota	Factor	Proportion in Metric Measurement	Proportion in English Measurement
1	.00222223	.0088	5.53
1½	.00333334	.0132	8.29
1¾	.00388889	.0154	9.67
2	.00444445	.0175	11.05
2½	.00555556	.0219	13.81
3	.00666667	.0263	16.58
3½	.00777778	.0307	19.34
4	.00888889	.0351	22.10
4¼	.00944445	.0373	23.48
4½	.0100000	.0395	24.87
5	.0111112	.0439	27.63
6	.0133334	.0526	33.15
6½	.0144445	.0570	35.92
7	.0155556	.0614	38.68
7½	.0166667	.0658	41.44
8	.0177778	.0702	44.20
8¾	.0194445	.0768	48.35
9	.0200000	.0789	49.73
10	.0222223	.0877	55.26
10½	.0233334	.0921	58.02
11	.0244445	.0965	60.78
12	.0266667	.1053	66.31
12½	.0277778	.1097	69.06
13	.0288889	.1140	71.83
15	.0333334	.1316	82.83
16¾	.0372223	.1469	92.56
17	.0377778	.1491	93.94
17½	.0388889	.1535	96.70
18	.0400000	.1579	99.46
19	.0422223	.1667	104.99
20½	.0455556	.1787	113.28
21	.0466667	.1842	116.04
21½	.0477778	.1886	118.80
22	.0488889	.1930	121.56
23¾	.0527778	.2083	131.23
25	.0555556	.2193	138.14
25½	.0566667	.2237	140.90
26	.0577778	.2281	143.67
27½	.0611112	.2412	151.95
28	.0622223	.2456	154.72
32	.0711112	.2807	176.82
32½	.0722223	.2851	179.58
34	.0755556	.2982	187.87
36	.0800000	.3158	198.92
42	.0933334	.3684	232.08
½	.00111112	.0044	2.76
3¾	.00833334	.0329	20.72
8½	.0188889	.0746	46.97
10¼	.0227778	.0899	56.64
18¾	.0416667	.1645	103.60
25¼	.0561112	.2215	139.52
23½	.0522223	.2061	129.85
26½	.0588889	.2325	149.20

N. B.—The quota for the width of the volutes is 7. The volute should be tangent to the bell of the capital.

Problem Seventeen

THE CORINTHIAN ORDER WITH THE PEDESTAL

(Metric Measurement)

153. The height of this Order is 5.000 meters. **PLATE XXI**

	Name of Member	Height Factor	Height Meters	Proj. Face Factor	Proj. Face Meters	Proj. Axis Factor	Proj. Axis Meters
Order	Entablature	.157895	.7895	.0666667	.3333	.0929825	.4649
						.0263158	.1316
						.0315790	.1579
	Column	.631579	3.1579				
	Pedestal	.210527	1.0526	.0140351	.0702	.0578948	.2895
			5.0000				
Entablature	Cornice	.0631579	.3158	.0666667	.3333	.0929825	.4649
						.0263158	.1316
	Frieze	.0473685	.2368				
	Architrave	.0473685	.2368	.00877193	.0439	.0350878	.1754
			.7894				
Column	Capital	.0736843	.3684	.0219299	.1097	.0482457	.2413
						.0263158	.1316
						.0315790	.1579
	Shaft	.526316	2.6316				
	Base	.0315790	.1579	.0122808	.0614	.0438597	.2193
			3.1579				
Pedestal	Cap	.0245615	.1228	.0140351	.0702	.0578948	.2895
						.0438597	.2193
	Dado	.164913	.8246			.0578948	.2895
	Basement	.0210527	.1053	.0140351	.0702		
			1.0527				
			5.0000				

Modern Base

	Name	Height Factor	Height Meters	Proj. Face Factor	Proj. Face Meters	Proj. Axis Factor	Proj. Axis Meters
Base F=.0315790	Upper Torus	.00614036	.0307	.00744515	.0372	.0390351	.1952
	Fillet	.000877193	.0044	.00438597	.0219	.0359650	.1798
	Scotia	.00526316	.0263				
	Fillet	.000877193	.0044	.00701755	.0351	.0385965	.1930
	Lower Torus	.00789474	.0395	.0122808	.0614	.0438597	.2193
	Plinth	.0105264	.0526	.0122808	.0614	.0438597	.2193
			.1579				

Impost and Archivolt of Arcade

	Name	Height Factor	Height Meters	Proj. Face Factor	Proj. Face Meters
Impost F=.0315790	Fillet	.00175439	.0088	.0105264	.0526
				.00964913	.0482
	Cyma Reversa	.00350878	.0175	.00614036	.0307
	Fascia	.00701755	.0351	.00570176	.0285
				.00482457	.0241
	Ovolo	.00350878	.0175	.00131579	.0066
	Reed	.00175439	.0088	.00219299	.0110
	Fillet	.000877193	.0044	.00131579	.0066
	Frieze	.0105264	.0526		
	Reed	.00175439	.0088	.00219299	.0110
	Fillet	.000877193	.0044	.00131579	.0066
			.1579		
Archivolt F=.0315790	Fillet	.00175439	.0088	.00877193	.0439
				.00833334	.0417
	Cyma Reversa	.00350878	.0175	.00570176	.0285
	Fascia³	.00877193	.0439	.00526316	.0263
				.00438597	.0219
	Ovolo	.00263158	.0132	.00175439	.0088
	Fillet	.000877193	.0044	.00175439	.0088
	Fascia²	.00701755	.0351	.000877193	.0044
	Reed	.00175439	.0088	.000877193	.0044
	Fascia¹	.00526316	.0263		
			.1580		

	Name of Moulding	Height Factor	Height Meters	Proj. Face Factor	Proj. Face Meters	Proj. Axis Factor	Proj. Axis Meters
Cornice	Fillet	.00175439	.0088	.0666667	.3333	.0929825	.4649
	Cyma Recta	.00877193	.0439				
	Fillet	.000877193	.0044	.0578948	.2895	.0842106	.4211
				.0574562	.2873	.0837720	.4189
	Cyma Reversa	.00263158	.0132	.0552632	.2763	.0815790	.4079
	Corona	.00877193	.0439	.0548246	.2741	.0811404	.4057
				.0543860	.2719	.0807016	.4035
	Cyma Reversa	.00263158	.0132	.0526316	.2632	.0789474	.3947
	Modillion	.0105264	.0526	.0521930	.2610	.0785088	.3925
	Fillet	.000877193	.0044	.0245615	.1228	.0508772	.2544
				.0236843	.1184	.0500000	.2500
	Ovolo	.00701755	.0351	.0166667	.0833	.0429825	.2149
	Reed	.00175439	.0088	.0175439	.0877	.0438597	.2193
	Fillet	.000877193	.0044	.0166667	.0833	.0429825	.2149
	Dentils	.0105264	.0526	.0157895	.0789	.0421053	.2105
	Fillet	.000877193	.0044	.00877193	.0439	.0350878	.1754
				.00789474	.0395	.0342106	.1711
	Cyma Reversa	.00526316	.0261	.00263158	.0132	.0289474	.1447
			.3158				
Frieze	Reed	.00175439	.0088	.00263158	.0132	.0289474	.1447
	Fillet	.000877193	.0044	.00175439	.0088	.0280702	.1404
	Frieze	.0447369	.2237			.0263188	.1316
			.2369				
Architrave	Fillet	.00175439	.0088	.00877193	.0439	.0350878	.1754
				.00833334	.0417	.0346492	.1732
	Cyma Reversa	.00701755	.0351	.00350878	.0175	.0298246	.1491
	Reed	.00175439	.0088	.00350878	.0175	.0298246	.1491
	Fascia³	.0122808	.0614	.00263158	.0132	.0289474	.1447
				.00219299	.0110	.0285088	.1425
	Cyma Reversa	.00350878	.0175	.00131579	.0067	.0276316	.1382
	Fascia²	.0105264	.0526	.000877193	.0044	.0271930	.1360
	Reed	.00175439	.0088	.000877193	.0044	.0271930	.1360
	Fascia¹	.00887193	.0439			.0263158	.1316
			.2369				
Capital	Ovolo	.00350878	.0175	.0219299	.1096	.0482457	.4212
	Fillet	.00175439	.0088	.0179826	.0899	.0442983	.2215
	Abacus	.00526316	.0263	.0149123	.0746	.0412281	.2061
				.00701755	.0351	.0333384	.1667
	Lip	.00350878	.0175	.0105264	.0526	.0368422	.1842
	Cavetto	.0105264	.0526			.0368422	.1842
	Channel	.00701755	.0351			.0263158	.1316
	Drop of Upper Leaves	.00526316	.0263			.0464913	.2325
	Upper Leaves	.0157895	.0789				
	Drop of Lower Leaves	.00526316	.0263			.0389565	.1925
	Lower Leaves	.0157895	.0789				
			.3682				
Shaft	Astragal	.00350878	.0175	.00526316	.0263	.0315790	.1579
	Fillet	.00175439	.0088	.00307018	.0154	.0293860	.1469
	Shaft	.526316	2.6316			.0263158	.1316
	Fillet	.00263158	.0132	.00350878	.0175	.0350878	.1754
	Upper Diam.	.0526316	.2632			.0263158	.1316
	Lower Diam.	.0631579	.3158			.0315790	.1579
			2.6316				
Base	Upper Torus	.00526316	.0263	.00701755	.0351	.0385965	.1930
	Fillet	.000438597	.0022	.00438597	.0219	.0359650	.1789
	Upper Scotia	.00219299	.0110				
	Fillet	.000438597	.0022	.00482457	.0241	.0364036	.1820
	2 Reeds	.00219299	.0110	.00614036	.0307	.0377193	.1886
	Fillet	.000438597	.0022	.00482457	.0241	.0364036	.1820
	Lower Scotia	.00263158	.0132				
	Fillet	.000438597	.0022	.00877193	.0439	.0403509	.2018
	Lower Torus	.00701755	.0351	.0122808	.0614	.0438597	.2193
	Plinth	.00105264	.0526	.0122808	.0614	.0438597	.2193
			.1580				
Cap	Fillet	.00175439	.0088	.0140351	.0702	.0578948	.2895
				.0131579	.0658	.0570176	.2851
	Cyma Reversa	.00292281	.0146	.0109650	.0548	.0548246	.2741
	Corona	.00526316	.0263	.0105264	.0526	.0543860	.2719
				.00877193	.0439	.0526316	.2632
	Cyma Recta	.00233860	.0117	.000877193	.0044	.0447369	.2237
	Reed	.00175439	.0088	.00175439	.0088	.0456141	.2281
	Fillet	.00175439	.0088	.000877193	.0044	.0447369	.2237
	Frieze	.00877193	.0439			.0438597	.2193
			.1229				
Dado	Reed	.00175439	.0088	.00350878	.0175	.0473685	.2368
	Fillet	.00175439	.0088	.00263158	.0132	.0464913	.2325
	Dado	.159650	.7983			.0438597	.2193
	Fillet	.00175439	.0088	.00263158	.0132	.0464913	.2325
			.8247				
Basement	Reed	.00175439	.0088	.00438597	.0219	.0482457	.2412
				.00350878	.0175	.0473685	.2368
	Cyma Recta	.00526316	.0263	.0105264	.0526	.0543860	.2719
	Fillet	.00175439	.0088	.0105264	.0526	.0543860	.2719
	Torus	.00526316	.0263	.0140351	.0702	.0578948	.2895
	Plinth	.00701755	.0351	.0140351	.0702	.0578948	.2895
			.1052				
			5.0003				

Problem Seventeen

THE CORINTHIAN ORDER WITH THE PEDESTAL

(English Measurement)

154.

The height of this Order is 5.000 m. × 629.92 = 3149.60 sixteenths.

PLATE XXI

Left tables

	Name of Member	Height Factor	Height Six-teenths	Projection From Face of Column Factor	Projection From Face of Column Six-teenths	Projection From Axis of Column Factor	Projection From Axis of Column Six-teenths
Order	Entablature ..	.157895	497.31	.0666667	209.97	.0929825	292.86
						.0263158	82.88
						.0315790	99.46
	Column	.631579	1989.22			.0578948	182.35
	Pedestal	.210527	663.08	.0140351	44.20		
			3149.61				
Entablature	Cornice	.0631579	198.92	.0666667	209.97	.0929825	292.86
	Frieze	.0473685	149.19			.0263158	82.88
	Architrave	.0473685	149.19	.00877193	27.63	.0350878	110.51
			497.30				
Column	Capital	.0736843	232.08	.0219299	69.07	.0482457	151.95
						.0263158	82.88
						.0315790	99.46
	Shaft	.526316	1657.67			.0438597	138.14
	Base	.0315790	99.46	.0122808	38.68		
			1989.21				
Pedestal	Cap	.0245615	77.38	.0140351	44.20	.0578948	182.35
	Dado	.164913	519.41			.0438597	138.14
	Basement	.0210527	66.31	.0140351	44.20	.0578948	182.35
			663.10				
			3149.62				

Modern Base

	Name of Member	Height Factor	Height Six-teenths	Projection From Face of Column Factor	Projection From Face of Column Six-teenths	Projection From Axis of Column Factor	Projection From Axis of Column Six-teenths
Base F=.0315790	Upper Torus..	.00614036	19.34	.00745615	23.48	.0390351	122.95
	Fillet	.000877193	2.76	.00438597	13.81	.0359650	113.28
	Scotia	.00526316	16.58				
	Fillet	.000877193	2.76	.00701755	22.10	.0385965	121.56
	Lower Torus..	.00789474	24.87	.0122808	38.68	.0438597	138.14
	Plinth	.0105264	33.15	.0122808	38.68	.0438597	138.14
			99.46				

Impost and Archivolt of Arcade

	Name of Member	Height Factor	Height Six-teenths	Projection From Face of Column Factor	Projection From Face of Column Six-teenths
Impost F=.0315790	Fillet	.00175439	5.53	.0105264	33.15
				.00964913	30.39
	Cyma Reversa	.00350878	11.05	.00614036	19.34
	Fascia	.00701755	22.10	.00570176	17.96
				.00482457	15.20
	Ovolo	.00350878	11.05	.00131579	4.14
	Reed	.00175439	5.53	.00219299	6.91
	Fillet	.000877193	2.76	.00131579	4.14
	Frieze	.0105264	33.15		
	Reed	.00175439	5.53	.00219299	6.91
	Fillet	.000877193	2.76	.00131579	4.14
			99.46		
Archivolt F=.0315790	Fillet	.00175439	5.53	.00877193	27.63
				.00833334	26.25
	Cyma Reversa	.00350878	11.05	.00570176	17.96
	Fascia³	.00877193	27.63	.00526316	16.58
				.00438597	13.81
	Ovolo	.00263158	8.29	.00175439	5.53
	Fillet	.000877193	2.76	.00175439	5.53
	Fascia²	.00701755	22.10	.000877193	2.76
	Reed	.00175439	5.53	.000877193	2.76
	Fascia¹	.00526316	16.58		
			99.47		

Right tables

	Name of Moulding	Height Factor	Height Six-teenths	Projection From Face of Column Factor	Projection From Face of Column Six-teenths	Projection From Axis of Column Factor	Projection From Axis of Column Six-teenths
Cornice	Fillet	.00175439	5.53	.0666667	209.97	.0929825	292.86
	Cyma Recta....	.00877193	27.63				
	Fillet	.000877193	2.76	.0578948	182.35	.0842106	265.23
				.0574562	180.96	.0837720	263.85
	Cyma Reversa..	.00263158	8.29	.0552632	174.06	.0815790	256.94
	Corona	.00877193	27.63	.0548246	172.68	.0811404	255.56
				.0543860	171.29	.0807018	254.18
	Cyma Reversa..	.00263158	8.29	.0526316.	165.77	.0789474	248.65
	Modillions	.0105264	33.15	.0521930	164.39	.0785088	247.27
	Fillet	.000877193	2.76	.0245615	77.36	.0508772	160.24
				.0236843	74.60	.0500000	157.48
	Ovolo	.00701755	22.10	.0166667	52.49	.0429825	135.38
	Reed	.00175439	5.53	.0175439	55.26	.0438597	138.14
	Fillet	.000877193	2.76	.0166667	52.49	.0429825	135.38
	Dentils	.0105264	33.15	.0157895	49.78	.0421053	132.61
	Fillet	.000877193	2.76	.00877193	27.63	.0350878	110.51
				.00789474	24.87	.0342106	107.75
	Cyma Reversa..	.00526316	16.58	.00263158	8.29	.0289474	91.17
			198.92				
Frieze	Reed	.00175439	5.53	.00263158	8.29	.0289474	91.17
	Fillet	.000877193	2.76	.00175439	5.53	.0280702	88.41
	Frieze	.0447369	140.90			.0263158	82.88
			149.19				
Architrave	Fillet	.00175439	5.53	.00877193	27.63	.0350878	110.51
				.00833334	26.25	.0346492	109.13
	Cyma Reversa..	.00701755	22.10	.00350878	11.05	.0298246	93.94
	Reed	.00175439	5.53	.00350878	11.05	.0298246	93.94
	Fascia³	.0122808	38.68	.00263158	8.29	.0289474	91.17
				.00219299	6.91	.0285088	89.79
	Cyma Reversa..	.00350878	11.05	.00131579	4.14	.0276316	87.03
	Fascia²	.0105264	33.15	.000877193	2.76	.0271930	85.65
	Reed	.00175439	5.53	.000877193	2.76	.0271930	85.65
	Fascia¹	.00877193	27.63			.0263158	82.88
			149.20				
Capital	Ovolo	.00350878	11.05	.0219299	69.06	.0482457	151.95
	Fillet	.00175439	5.53	.0179826	56.64	.0442983	139.52
	Abacus	.00526316	16.58	.0149123	46.97	.0412281	129.85
				.00701755	22.10	.0333334	104.98
	Lip	.00350878	11.05	.0105264	33.15	.0368422	116.04
	Cavetto	.0105264	33.15			.0368422	116.04
	Channel	.00701755	22.10			.0263158	82.88
	Drop of Upper Leaves	.00526316	16.58			.0464913	146.42
	Upper Leaves...	.0157895	49.73				
	Drop of Lower Leaves	.00526316	16.58			.0385965	121.56
	Lower Leaves...	.0157895	49.73				
			232.08				
Shaft	Astragal	.00350878	11.05]*	.00526316	16.58	.0315790	99.46
	Fillet	.00175439	5.53{	.00307018	9.67	.0293860	92.56
	Shaft	.526316	1657.67			.0263158	82.88
	Fillet	.00263158	8.29}	.00350878	11.05	.0350878	110.51
	Upper Diam....	.0526316	165.77]*			.0263158	82.88
	Lower Diam....	.0631579	198.92			.0315790	99.46
			1657.67				
Base	Upper Torus....	.00526316	16.58	.00701755	22.10	.0385965	121.56
	Fillet	.000438597	1.38	.00438597	13.81	.0359650	113.28
	Upper Scotia...	.00219299	6.91				
	Fillet	.000438597	1.38	.00482457	15.20	.0364036	114.66
	2 Reeds........	.00219299	6.91	.00614036	19.34	.0377193	118.80
	Fillet	.000438597	1.38	.00482457	15.20	.0364036	114.66
	Lower Scotia...	.00263158	8.29				
	Fillet	.000438597	1.38	.00877193	27.63	.0403509	127.09
	Lower Torus....	.00701755	22.10	.0122808	38.68	.0438597	138.14
	Plinth	.0105264	33.15	.0122808	38.68	.0438597	138.14
			99.46				
Cap	Fillet	.00175439	5.53	.0140351	44.20	.0578948	182.35
				.0131579	41.44	.0570176	179.54
	Cyma Reversa..	.00292281	9.21	.0109650	34.54	.0548246	172.68
	Corona	.00526316	16.58	.0105264	33.15	.0513860	171.29
				.00877193	27.63	.0526316	165.77
	Cyma Recta....	.00233860	7.37	.000877193	2.76	.0447369	140.90
	Reed	.00175439	5.53	.00175439	5.53	.0456141	143.76
	Fillet	.00175439	5.53	.000877193	2.76	.0447369	140.90
	Frieze	.00877193	27.63			.0438597	138.14
			77.38				
Dado	Reed	.00175439	5.53	.00350878	11.05	.0472685	149.19
	Fillet	.00175439	5.53	.00263158	8.29	.0464913	146.43
	Dado	.159650	502.83			.0438597	138.14
	Fillet	.00175439	5.53	.00263158	8.29	.0464913	146.43
			519.42				
Basement	Reed	.00175439	5.53	.00438597	13.81	.0482457	151.95
				.00350878	11.05	.0473685	149.19
	Cyma Recta....	.00526316	16.58	.0105264	33.15	.0543860	171.29
	Fillet	.00175439	5.53	.0105264	33.15	.0543860	171.29
	Torus	.00526316	16.58	.0140351	44.20	.0578948	182.35
	Plinth	.00701755	22.10	.0140351	44.20	.0578948	182.35
			66.32				
			3149.64				

Problem Eighteen

SIMPLE INTERCOLUMNIATION WITH THE CORINTHIAN ORDER

(Without the Pedestal)

(Metric Measurement)

155.　　　　　　　The height of this Order is 3.000 meters.　　　　　　**PLATE XXIII**

	Name of Member	Height Factor	Height Meters	Projection From Face of Column Factor	Projection From Face of Column Meters	Projection From Axis of Column Factor	Projection From Axis of Column Meters
Order	Entablature	.200000	.6000	.0844445	.2533	.117778	.3533
						.0333334	.1000
	Column	.800000	2.4000			.0400000	.1200
			3.0000				
Entablature	Cornice	.0800000	.2400	.0844445	.2533	.117778	.3533
	Frieze	.0600000	.1800			.0333334	.1000
	Architrave	.0600000	.1800	.0111112	.0333	.0444445	.1333
			.6000				
Column	Capital	.0933334	.2800	.0277778	.0833	.0611112	.1833
						.0333334	.1000
	Shaft	.666667	2.0000			.0400000	.1200
	Base	.0400000	.1200	.0155556	.0467	.0555556	.1667
			2.4000				
			3.4000				

	Name of Moulding	Height Factor	Height Meters	Face of Column Projection From Factor	Face of Column Projection From Meters	Projection From Axis of Column Factor	Projection From Axis of Column Meters
Cornice	Fillet	.00222223	.0067	.0844445	.2533	.117778	.3533
	Cyma Recta........	.0111112	.0333				
	Fillet	.00111112	.0033	.0733334	.2200	.106667	.3200
				.0727778	.2183	.106112	.3183
	Cyma Reversa.....	.00333334	.0100	.0700000	.2100	.103334	.3100
	Corona	.0111112	.0333	.0694445	.2083	.102778	.3083
				.0688889	.2067	.102223	.3067
	Cyma Reversa.....	.00333334	.0100	.0666667	.2000	.100000	.3000
	Modillions	.0133334	.0400	.0661112	.1983	.0994445	.2983
	Fillet	.00111112	.0033	.0311112	.0933	.0644445	.1933
				.0300000	.0900	.0633334	.1900
	Ovolo	.00888889	.0267	.0211112	.0633	.0544445	.1633
	Reed	.00222223	.0067	.0222223	.0667	.0555556	.1667
	Fillet	.00111112	.0033	.0211112	.0633	.0544445	.1633
	Dentils	.0133334	.0400	.0200000	.0600	.0533334	.1600
	Fillet	.00111112	.0033	.0111112	.0333	.0444445	.1333
				.0100000	.0300	.0433334	.1300
	Cyma Reversa.....	.00666667	.0200	.00333334	.0100	.0366667	.1100
			.2399				
Frieze	Reed	.00222223	.0067	.00333334	.0100	.0366667	.1100
	Fillet	.00111112	.0033	.00222223	.0067	.0355556	.1067
	Frieze	.0566667	.1700			.0333334	.1000
			.1800				
Architrave	Fillet	.00222223	.0067	.0111112	.0333	.0444445	.1333
				.0105556	.0317	.0438889	.1317
	Cyma Reversa.....	.00888889	.0267	.00444445	.0113	.0377778	.1133
	Reed	.00222223	.0067	.00444445	.0113	.0377778	.1133
	Fascia[3]	.0155556	.0467	.00333334	.0100	.0366667	.1100
				.00277778	.0083	.0361162	.1083
	Cyma Reversa.....	.00444445	.0133	.00166667	.0050	.0350000	.1050
	Fascia[2]	.0133334	.0400	.00111112	.0033	.0344445	.1035
	Reed	.00222223	.0067	.00111112	.0033	.0344445	.1033
	Fascia[1]	.0111112	.0333			.0333334	.1000
			.1801				
Capital	Ovolo	.00444445	.0133	.0277778	.0833	.0611112	.1833
	Fillet	.00222223	.0067	.0227778	.0683	.0561112	.1688
	Abacus	.00666667	.0200	.0188889	.0567	.0522223	.1567
				.00888889	.0267	.0422223	.1267
	Lip	.00444445	.0133	.0133334	.0400	.0466667	.1400
	Cavetto	.0133334	.0400			.0466667	.1400
	Channel	.00888889	.0267			.0333334	.1000
	Drop of Upper Leaves	.00666667	.0200			.0588888	.1767
	Upper Leaves......	.0200000	.0600				
	Drop of Lower Leaves	.0066667	.0200			.0488889	.1467
	Lower Leaves......	.0200000	.0600				
			.2800				
Shaft	Astragal	.00444445	.0133}*	.00666667	.0200	.0400000	.1200
	Fillet	.00222223	.0066}	.00388889	.0117	.0372223	.1117
	Shaft	.666667	2.0000			.0333334	1.000
	Fillet .....:.......	.00333334	.0100}	.00444445	.0133	.0444445	.1333
	Upper Diam........	.0666667	2.0000}*			.0333334	1.000
	Lower Diam........	.0800000	.2400}			.0400000	.1200
			2.0000				
Base	Upper Torus.......	.00666667	.0200	.00888889	.0267	.0488889	.1467
	Fillet	.000555556	.0017	.00555556	.0167	.0455556	.1367
	Upper Scotia.......	.00222223	.0067				
	Fillet	.000555556	.0017	.00611112	.0183	.0461112	.1383
	2 Reeds............	.00277778	.0083	.00777778	.0233	.0477778	.1433
	Fillet	.000555556	.0017	.00611112	.0183	.0461112	.1383
	Lower Scotia.......	.00277778	.0083				
	Fillet	.00166667	.0050	.0111112	.0333	.0511112	.1533
	Lower Torus.......	.00888889	.0267	.0155556	.0467	.0555556	.1667
	Plinth	.0133334	.0400	.0155556	.0467	.0555556	.1667
			.1201				
			3.0001				

Simple Corinthian Intercolumniation

Height of the Order is 3.000 meters.

Distance From Axis to Axis Factor	Distance From Axis to Axis Meters	Distance Between Columns Factor	Distance Between Columns Meters	Width of Opening Factor	Width of Opening Meters	Height of Opening Factor	Height of Opening Meters
.266667	.8000	.186667	.5600	.186667	.5600	.800000	2.4000

Problem Eighteen

SIMPLE INTERCOLUMNIATION WITH THE CORINTHIAN ORDER

(English Measurement) (Without the Pedestal)

156. The height of this Order is 3.000 m. × 629.92 = 1889.76 sixteenths **PLATE XXIII**

Name of Member	Height Factor	Height Six-teenths	Projection From Face of Column Factor	Projection From Face of Column Six-teenths	Projection From Axis of Column Factor	Projection From Axis of Column Six-teenths
Order						
Entablature	.200000	377.95	.0844445	159.58	.117778	222.57
					.0333334	62.99
Column	.800000	1511.81			.0400000	75.59
		1889.76				
Entablature						
Cornice	.0800000	151.18	.0844445	159.58	.117778	222.57
Frieze	.0600000	113.39			.0333334	62.99
Architrave	.0600000	113.39	.0111112	21.00	.0444445	83.99
		377.96				
Column						
Capital	.0933334	176.38	.0277778	52.49	.0611112	115.49
					.0333334	62.99
					.0400000	75.59
Shaft	.666667	1259.84			.0555556	104.99
Base	.0400000	75.59	.0155556	29.40		
		1511.81				
		1889.77				

Name of Moulding	Height Factor	Height Six-teenths	Projection From Face of Column Factor	Projection From Face of Column Six-teenths	Projection From Axis of Column Factor	Projection From Axis of Column Six-teenths
Fillet	.00222223	4.20	.0844445	159.58	.117778	222.57
Cyma Recta.....	.0111112	21.00				
Fillet	.00111112	2.10	.0733334	138.58	.106667	201.58
			.0727778	137.53	.106112	200.53
Cyma Reversa..	.00333334	6.30	.0700000	132.28	.103334	195.28
Corona	.0111112	21.00	.0694445	131.23	.102778	194.23
			.0688889	130.18	.102223	193.18
Cornice Cyma Reversa..	.00333334	6.30	.0666667	125.98	.100000	188.98
Modillions	.0133334	25.20	.0661112	124.93	.0994445	187.93
Fillet	.00111112	2.10	.0311112	58.79	.0644445	121.78
			.0300000	56.69	.0633334	119.68
Ovolo	.00888889	16.80	.0211112	39.89	.0544445	102.88
Reed	.00222223	4.20	.0222223	41.99	.0555556	104.99
Fillet	.00111112	2.10	.0211112	39.89	.0544445	102.88
Dentils	.0133334	25.20	.0200000	37.80	.0533334	100.79
Fillet	.00111112	2.10	.0111112	21.00	.0444445	83.99
			.0100000	18.90	.0433334	81.89
Cyma Reversa..	.00666667	12.60	.00333334	6.30	.0366667	69.29
		151.20				
Frieze Reed	.00222223	4.20	.00333334	6.30	.0366667	69.29
Fillet	.00111112	2.10	.00222223	4.20	.0355556	67.19
Frieze	.0566667	107.09			.0333334	62.99
		113.39				
Fillet	.00222223	4.20	.0111112	21.00	.0444445	83.99
			.0105556	19.95	.0438889	82.94
Architrave Cyma Reversa..	.00888889	16.80	.00444445	8.40	.0377778	71.39
Reed	.00222223	4.20	.00444445	8.40	.0377778	71.39
Fascia³	.0155556	29.40	.00333334	6.30	.0366667	69.29
			.00277778	5.25	.0361112	68.24
Cyma Reversa..	.00444445	8.40	.00166667	3.15	.0350000	66.14
Fascia²	.0133334	25.20	.00111112	2.10	.0344445	65.09
Reed	.00222223	4.20	.00111112	2.10	.0344445	65.09
Fascia¹	.0111112	21.00			.0333334	62.99
		113.40				
Ovolo	.00444445	8.40	.0277778	52.49	.0611112	115.49
Fillet	.00222223	4.20	.0227778	43.04	.0561112	106.04
Abacus	.00666667	12.60	.0188889	35.69	.0522223	98.69
			.00888889	16.80	.0422223	79.29
Lip	.00444445	8.40	.0133334	25.20	.0466667	88.19
Cavetto	.0133334	25.20			.0466667	88.19
Capital Channel	.00888889	16.80			.0333334	62.99
Drop of Upper Leaves	.00666667	12.60			.0588889	110.28
Upper Leaves...	.0200000	37.80				
Drop of Lower Leaves	.00666667	12.60			.0488889	92.40
Lower Leaves..	.0200000	37.80				
		176.40				
Shaft Astragal	.00444445	8.40}*	.00666667	12.60	.0400000	75.59
Fillet	.00222223	4.20}	.00388889	7.35	.0372223	70.33
Shaft	.666667	1259.84			.0333334	62.99
Fillet	.00333334	6.30}			.0444445	83.99
Upper Diam....	.0666667	125.98}*	.00444445	8.40	.0333334	62.99
Lower Diam....	.0800000	151.18}			.0400000	75.59
		1259.84				
Base Upper Torus...	.00666667	12.60	.00888889	16.80	.0488889	92.40
Fillet	.000555556	1.05	.00555556	10.50	.0455556	86.09
Upper Scotia...	.00222223	4.20				
Fillet	.000555556	1.05	.00611112	11.55	.0461112	87.14
2 Reeds........	.00277778	5.25	.00777778	14.70	.0477778	90.29
Fillet	.000555556	1.05	.00611112	11.55	.0461112	87.14
Lower Scotia...	.00277778	5.25				
Fillet	.00166667	3.15	.0111112	21.00	.0511112	96.59
Torus	.00888889	16.80	.0155556	29.40	.0555556	104.99
Plinth	.0133334	25.20	.0155556	29.40	.0555556	104.99
		75.60				
		1889.83				

Simple Corinthian Intercolumniation

Height of the Order is 1889.76 sixteenths.

Distance From Axis to Axis Factor	Distance From Axis to Axis Six-teenths	Distance Between Columns Factor	Distance Between Columns Six-teenths	Width of Opening Factor	Width of Opening Six-teenths	Height of Opening Factor	Height of Opening Six-teenths
.266667	503.94	.186667	352.76	.186667	352.76	.800000	1511.81

Problem Nineteen

ARCADE INTERCOLUMNIATION WITH THE CORINTHIAN ORDER WITHOUT THE PEDESTAL

(Metric Measurement)

157. The height of this Order is 2.3684 meters.   **PLATE XXIV**

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Meters	Factor	Meters	Factor	Meters
Order	Entablature	.200000	.4737	.0844445	.2000	.117778	.2789
						.0333334	.0789
	Column	.800000	1.8947			.0400000	.0947
			2.3684				
Entablature	Cornice	.0800000	.1895	.0844445	.2000	.117778	.2789
	Frieze	.0600000	.1421			.0333334	.0789
	Architrave	.0600000	.1421	.0111112	.0263	.0444445	.1053
			.4737				
Column	Capital	.0933334	.2211	.0277778	.0658	.0611112	.1447
						.0333334	.0789
						.0400000	.0947
	Shaft	.666667	1.5789				
	Base	.0400000	.0947	.0155556	.0368	.0555556	.1316
			1.8947				
			2.2684				

Corinthian Arcade Intercolumniation

Height of the Order is 2.3684 meters.

Distance From Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening		Height of Impost	
Factor	Meters	Factor	Meters	Factor	Meters	Factor	Meters	Factor	Meters
.480000	1.1368	.400000	.9474	.360000	.8526	.720000	1.7052	.540000	1.2789
*.500000	1.1842	.420000	.9947						

*Factors for increased width of "alette."

Impost and Archivolt of Arcade

	Name	Factor	Meters	Factor	Meters
Impost F = .0400000	Fillet	.00222223	.0053	.0133334	.0316
				.0122223	.0289
	Cyma Reversa.....	.00444445	.0105	.00777778	.0184
	Fascia	.00888889	.0211	.00722223	.0171
				.00611112	.0145
	Ovolo	.00444445	.0105	.00166667	.0039
	Reed	.00222223	.0053	.00277778	.0066
	Fillet	.00111112	.0026	.00166667	.0039
	Frieze	.0133334	.0316		
	Reed	.00222223	.0053	.00277778	.0066
	Fillet	.00111112	.0026	.00166667	.0039
			.0948		
Archivolt F = .0200000	Fillet	.00166667	.0039	.00666667	.0158
				.00611112	.0145
	Cyma Reversa.....	.00388889	.0092	.00222223	.0053
	Fascia²	.00833334	.0197	.00166667	.0039
	Fascia¹	.00611112	.0145		
			.0473		

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Meters	Factor	Meters	Factor	Meters
	Fillet	.00222223	.0053	.0844445	.2000	.117778	.2789
	Cyma Recta.......	.0111112	.0263				
	Fillet	.00111112	.0026	.0733334	.1737	.106667	.2526
				.0727778	.1724	.106112	.2513
	Cyma Reversa.....	.00333334	.0079	.0700000	.1658	.103334	.2445
	Corona	.0111112	.0263	.0694445	.1645	.102778	.2434
				.0688889	.1632	.102223	.2421
Cornice	Cyma Reversa.....	.00333334	.0079	.0666667	.1579	.100000	.2368
	Modillion	.0133334	.0316	.0661112	.1567	.0994445	.2355
	Fillet	.00111112	.0026	.0311112	.0737	.0644445	.1526
				.0300000	.0711	.0633334	.1500
	Ovolo	.00888889	.0211	.0211112	.0500	.0544445	.1289
	Reed	.00222223	.0053	.0222223	.0526	.0555556	.1316
	Fillet	.00111112	.0026	.0211112	.0500	.0544445	.1289
	Dentils	.0133334	.0316	.0200000	.0474	.0533334	.1263
	Fillet	.00111112	.0026	.0111112	.0263	.0444445	.1053
				.0100000	.0237	.0423334	.1026
	Cyma Reversa.....	.00666667	.0158	.00333334	.0079	.0366667	.0868
			.1895				
Frieze	Reed	.00222223	.0053	.00333334	.0079	.0366667	.0868
	Fillet	.00111112	.0026	.00222223	.0053	.0355556	.0842
	Frieze	.0566667	.1342			.0333334	.0789
			.1421				
	Fillet	.00222223	.0053	.0111112	.0263	.0444445	.1053
				.0105556	.0250	.0438889	.1039
	Cyma Reversa.....	.00888889	.0211	.00444445	.0105	.0377778	.0895
	Reed	.00222223	.0053	.00444445	.0105	.0377778	.0895
Architrave	Fascia³	.0155556	.0368	.00333334	.0079	.0366667	.0868
				.00277778	.0066	.0361112	.0855
	Cyma Reversa.....	.00444445	.0105	.00166667	.0039	.0350000	.0829
	Fascia²	.0133334	.0316	.00111112	.0026	.0344445	.0816
	Reed	.00222223	.0053	.00111112	.0026	.0344445	.0816
	Fascia¹	.0111112	.0263			.0333334	.0789
			.1422				
	Ovolo	.00444445	.0105	.0277778	.0658	.0611112	.1447
	Fillet	.00222223	.0053	.0227778	.0539	.0561112	.1329
	Abacus	.00666667	.0158	.0188889	.0447	.0522223	.1237
				.00888889	.0211	.0422223	.1000
	Lip	.00444445	.0105	.0133334	.0316	.0466667	.1105
Capital	Cavetto	.0133334	.0316			.0466667	.1105
	Channel	.00888889	.0211			.0333334	.0789
	Drop of Upper Leaves...	.00666667	.0158			.0588889	.1413
	Upper Leaves.....	.0200000	.0474				
	Drop of Lower Leaves...	.00666667	.0158			.0488889	.1158
	Lower Leaves.....	.0200000	.0474				
			.2212				
	Astragal	.00444445	.0105	.00666667	.0158	.0400000	.0947
	Fillet	.00222223	.0053	.00388889	.0092	.0372223	.0882
Shaft	Shaft	.666667	1.5789			.0333334	.0789
	Fillet	.00333334	.0079	.00444445	.0105	.0444445	.1053
	Upper Diam......	.0666667	.1579			.0333334	.0789
	Lower Diam.......	.0800000	.1895			.0400000	.0947
			1.5789				
	Upper Torus......	.00666667	.0158	.00888889	.0211	.0488889	.1158
	Fillet	.000555556	.0013	.00555556	.0132	.0455556	.1079
	Upper Scotia......	.00222223	.0053				
	Fillet	.000555556	.0013	.00611112	.0145	.0461112	.1092
	2 Reeds..........	.00277778	.0066	.00777778	.0184	.0477778	.1132
	Fillet	.000555556	.0013	.00611112	.0145	.0461112	.1093
Base	Lower Scotia......	.00277778	.0066				
	Fillet	.00166667	.0039	.0111112	.0263	.0511112	.1211
	Lower Torus......	.00888889	.0211	.0155556	.0368	.0555556	.1316
	Plinth	.0133334	.0316	.0155556	.0368	.0555556	.1316
			.0948				
			2.3687				

Problem Nineteen

ARCADE INTERCOLUMNIATION WITH THE CORINTHIAN ORDER WITHOUT THE PEDESTAL

(English Measurement)

158. The height of this Order is 2.3684 m. × 629.92 = 1491.90 sixteenths.　　　　**PLATE XXIV**

Name of Moulding	Height Factor	Six-teenths	Proj. Face Factor	Six-teenths	Proj. Axis Factor	Six-teenths
Entablature ..	.200000	298.38	.0844445	125.98	.117778	175.71
					.0333334	49.73
Column	.800000	1193.52			.0400000	59.68
		1491.90				
Cornice	.0800000	119.35	.0844445	125.98	.117778	175.71
Frieze	.0600000	89.51			.0333334	49.73
Architrave ...	.0600000	89.51	.0111112	16.58	.0444445	66.31
		298.37				
Capital	.0933334	139.24	.0277778	41.44	.0611112	91.17
					.0333334	49.73
					.0400000	59.68
Shaft	.666667	994.62			.0400000	59.68
Base	.0400000	59.68	.0155556	23.21	.0555556	82.88
		1193.54				
		1491.91				

Corinthian Arcade Intercolumniation

Height of the Order is 1491.90 sixteenths.

Distance From Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening		Height of Impost	
Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
.480000	716.11	.400000	596.76	.360000	537.08	.720000	1074.17	.540000	805.62
*.500000	745.95	.420000	626.60						

*Factors for increased width of "alette."

Impost and Archivolt of Arcade

Impost F=.0200000

Name	Factor	Six-teenths	Factor	Six-teenths
Fillet	.00222223	3.32	.0133334	19.89
			.0122223	18.23
Cyma Reversa	.00444445	6.63	.00777778	11.60
Fascia	.00888889	13.26	.00722223	10.77
			.00611112	9.12
Ovolo	.00444445	6.63	.00166667	2.49
Reed	.00222223	3.32	.00277778	4.14
Fillet	.00111112	1.66	.00166667	2.49
Frieze	.0133334	19.89		
Reed	.00222223	3.32	.00277778	4.14
Fillet	.00111112	1.66	.00166667	2.49
		59.69		

Archivolt F=.0200000

Name	Factor	Six-teenths	Factor	Six-teenths
Fillet	.00166667	2.49	.00666667	9.95
			.00611112	9.12
Cyma Reversa	.00388889	5.80	.00222223	3.32
Fascia²	.00833334	12.43	.00166667	2.49
Fascia¹	.00611112	9.12		
		29.84		

Name of Member	Height Factor	Six-teenths	Proj. Face Factor	Six-teenths	Proj. Axis Factor	Six-teenths
Cornice						
Fillet	.00222223	3.32	.0844445	125.98	.117778	175.71
Cyma Recta...	.0111112	16.58				
Fillet	.00111112	1.66	.0733334	109.41	.106667	159.14
			.0727778	108.58	.106112	158.31
Cyma Reversa	.00333334	4.97	.0700000	104.43	.103334	154.16
Corona	.0111112	16.58	.0694445	103.60	.102778	153.33
			.0688889	102.78	.102223	152.51
Cyma Reversa	.00333334	4.97	.0666667	99.46	.100000	149.19
Modillion	.0133334	19.89	.0661112	98.63	.0994445	148.36
Fillet	.00111112	1.66	.0311112	46.41	.0644445	96.14
			.0300000	44.76	.0633334	94.49
Ovolo	.00888889	13.26	.0211112	31.50	.0544445	81.23
Reed	.00222223	3.32	.0222223	33.15	.0555556	82.88
Fillet	.00111112	1.66	.0211112	31.50	.0544445	81.23
Dentils	.0133334	19.89	.0200000	29.84	.0533334	79.57
Fillet	.00111112	1.66	.0111112	16.58	.0444445	66.31
			.0100000	14.92	.0433334	64.65
Cyma Reversa	.00666667	9.95	.00333334	4.97	.0366667	54.70
		119.37				
Frieze						
Reed	.00222223	3.32	.00333334	4.97	.0366667	54.70
Fillet	.00111112	1.66	.00222223	3.32	.0355556	53.05
Frieze	.0566667	84.54			.0333334	49.73
		89.52				
Architrave						
Fillet	.00222223	3.32	.0111112	16.58	.0444445	66.31
			.0105556	15.75	.0438889	65.48
Cyma Reversa	.00888889	13.26	.00444445	6.63	.0377778	56.36
Reed	.00222223	3.32	.00444445	6.63	.0377778	56.36
Fascia³	.0155556	23.21	.00333334	4.97	.0366667	54.70
			.00277778	4.14	.0361112	53.82
Cyma Reversa	.00444445	6.63	.00166667	2.49	.0350000	52.22
Fascia²	.0133334	19.89	.00111112	1.66	.0344445	51.39
Reed	.00222223	3.32	.00111112	1.66	.0344445	51.39
Fascia¹	.0111112	16.58			.0333334	49.73
		89.53				
Capital						
Ovolo	.00444445	6.63	.0277778	41.44	.0611112	91.17
Fillet	.00222223	3.32	.0227778	34.02	.0561112	83.71
Abacus	.00666667	9.95	.0188889	28.18	.0522223	77.90
			.00888889	13.26	.0422223	62.99
Lip	.00444445	6.63	.0133334	19.89	.0466667	69.62
Cavetto	.0133334	19.89			.0466667	69.62
Channel	.00888889	13.26			.0333334	49.73
Drop of Upper Leaves	.00666667	9.95			.0588889	89.52
Upper Leaves.	.0200000	29.84				
Drop of Lower Leaves	.00666667	9.95			.0488889	72.93
Lower Leaves.	.0200000	29.84				
		139.26				
Shaft						
Astragal	.00444445	6.63}*	.0066667	9.95	.0400000	59.68
Fillet	.00222223	3.32}	.00388889	5.80	.0372223	55.53
Shaft	.666667	994.62			.0333334	49.73
Fillet	.00333334	4.97	.00444445	6.63	.0444445	66.31
Upper Diam...	.0666667	99.46}*			.0333334	49.73
Lower Diam..	.0800000	119.35			.0400000	59.68
		994.62				
Base						
Upper Torus..	.00666667	9.95	.00888889	13.26	.0488889	72.93
Fillet	.000555556	.83	.00555556	8.29	.0455556	67.96
Upper Scotia.	.00222223	3.32				
Fillet	.000555556	.83	.00611112	9.12	.0461112	68.79
2 Reeds	.00277778	4.14	.00777778	11.60	.0477778	71.28
Fillet	.000555556	.83	.00611112	9.12	.0461112	68.79
Lower Scotia..	.00277778	4.14				
Fillet	.00166667	2.49	.0111112	16.58	.0511112	76.25
Lower Torus..	.00888889	13.26	.0155556	23.21	.0555556	82.88
Plinth	.0133334	19.89	.0155556	23.21	.0555556	82.88
		59.68				
		1491.98				

ARCADE INTERCOLUMNIATION WITH THE CORINTHIAN ORDER WITH THE PEDESTAL

The height of this Order is 3.000 meters. PLATE XXV

	Name of Member	Height Factor	Height Meters	Proj. From Face of Column Factor	Proj. Face Meters	Proj. From Axis of Column Factor	Proj. Axis Meters
Entablature Order	Entablature	.157895	.4737	.0666667	.2000	.0929825	.2789
						.0263158	.0789
	Column	.631579	1.8947			.0315790	.0947
	Pedestal	.210527	.6316	.0140351	.0421	.0578948	.1737
			3.0000				
Entablature	Cornice	.0631579	.1895	.0666667	.2000	.0929825	.2789
	Frieze	.0473685	.1421			.0263158	.0789
	Architrave	.0473685	.1421	.00877193	.0263	.0350878	.1053
			.4737				
Column	Capital	.0736843	.2211	.0219299	.0658	.0482457	.1448
						.0263158	.0789
	Shaft	.526316	1.5789			.0315790	.0947
	Base	.0315790	.0947	.0122808	.0368	.0438597	.1316
			1.8947				
Pedestal	Cap	.0245615	.0737	.0140351	.0421	.0578948	.1737
	Dado	.164913	.4947			.0438597	.1316
	Basement	.0210527	.0632	.0140351	.0421	.0578948	.1737
			.6316				
			3.0000				

Corinthian Arcade Intercolumniation
Height of the Order is 3.000 meters

Distance from Axis to Axis Factor	Meters	Distance between Columns Factor	Meters	Width of Opening Factor	Meters	Height of Opening Factor	Meters	Height of Impost Factor	Meters
.505264	1.5158	.442106	1.3263	.378948	1.1368	.789474	2.3684	.600000	1.8000

Impost and Archivolt of Arcade

	Name	Height Factor	Height Meters	Proj. Factor	Proj. Meters
Impost F=.0315790	Fillet	.00175439	.0053	.0105264	.0316
				.00964913	.0289
	Cyma Reversa	.00350878	.0105	.00614036	.0184
	Fascia	.00701755	.0211	.00570176	.0171
				.00482457	.0145
	Ovolo	.00350878	.0105	.00131579	.0039
	Reed	.00175439	.0053	.00219299	.0066
	Fillet	.000877193	.0026	.00131579	.0039
	Frieze	.0105264	.0316		
	Reed	.00175439	.0053	.00219299	.0066
	Fillet	.000877193	.0026	.00131579	.0039
			.0948		
Archivolt F=.0315790	Fillet	.00175439	.0053	.00877193	.0263
				.00833334	.0250
	Cyma Reversa	.00350878	.0105	.00570176	.0171
	Fascia³	.00877193	.0263	.00526316	.0158
				.00438597	.0132
	Ovolo	.00263158	.0079	.00175439	.0053
	Fillet	.000877193	.0026	.00175439	.0053
	Fascia²	.00701755	.0211	.000877193	.0026
	Reed	.00175439	.0053	.000877193	.0026
	Fascia¹	.00526316	.0158		
			.0948		

	Name of Moulding	Height Factor	Height Meters	Proj. From Face of Column Factor	Proj. Face Meters	Proj. From Axis of Column Factor	Proj. Axis Meters
Cornice	Fillet	.00175439	.0053	.0666667	.2000	.0929825	.2789
	Cyma Recta	.00877193	.0263				
	Fillet	.000877193	.0026	.0578948	.1737	.0842106	.2526
				.0574562	.1724	.0837720	.2513
	Cyma Reversa	.00263158	.0079	.0552632	.1658	.0815790	.2447
	Corona	.00877193	.0263	.0548246	.1645	.0811404	.2434
				.0543860	.1631	.0807018	.2421
	Cyma Reversa	.00263158	.0079	.0526316	.1579	.0789474	.2368
	Modillions	.0105264	.0316	.0521930	.1566	.0785088	.2355
	Fillet	.000877193	.0026	.0245615	.0737	.0508772	.1526
				.0236843	.0711	.0500000	.1500
	Ovolo	.00701755	.0211	.0166667	.0500	.0429825	.1298
	Reed	.00175439	.0053	.0175439	.0526	.0438597	.1316
	Fillet	.000877193	.0026	.0166667	.0500	.0429825	.1298
	Dentils	.0105264	.0316	.0157895	.0474	.0421053	.1263
	Fillet	.00877193	.0026	.00877193	.0263	.0350878	.1053
				.00789474	.0237	.0342106	.1026
	Cyma Reversa	.00526316	.0158	.00263158	.0079	.0289474	.0868
			.1895				
Frieze	Reed	.00175439	.0053	.00263158	.0079	.0289474	.0868
	Fillet	.000877193	.0026	.00175439	.0053	.0280702	.0842
	Frieze	.0447369	.1342			.0263158	.0789
			.1421				
Architrave	Fillet	.00175439	.0053	.00877193	.0263	.0350878	.1053
	Cyma Reversa	.00701755	.0211	.00833334	.0250	.0346492	.1039
				.00350878	.0105	.0298246	.0894
	Reed	.00175439	.0053	.00350878	.0105	.0298246	.0894
	Fascia³	.0122808	.0368	.00263158	.0079	.0289474	.0866
				.00219299	.0066	.0285088	.0855
	Cyma Reversa	.00350878	.0105	.00131579	.0039	.0276316	.0829
	Fascia²	.0105264	.0316	.000877193	.0026	.0271930	.0816
	Reed	.00175439	.0053	.000877193	.0026	.0271930	.0816
	Fascia¹	.00877193	.0263			.0263150	.0789
			.1422				
Capital	Ovolo	.00350878	.0105	.0219299	.0658	.0482457	.1448
	Fillet	.00175439	.0053	.0179826	.0539	.0442983	.1329
	Abacus	.00526316	.0158	.0149123	.0447	.0412281	.1237
				.00701755	.0211	.0333334	.1000
	Lip	.00350878	.0105	.0105264	.0316	.0368422	.1105
	Cavetto	.0105264	.0316			.0368422	.1105
	Channel	.00701755	.0211			.0263158	.0789
	Drop of Upper Leaves	.00526316	.0158			.0464913	.1428
	Upper Leaves	.0157895	.0474				
	Drop of Lower Leaves	.00526316	.0158			.0385965	.1135
	Lower Leaves	.0157895	.0474				
			.2212				
Shaft	Astragal	.00350878	.0105}	.00526316	.0158	.0315790	.0947
	Fillet	.00175439	.0053}*	.00307018	.0092	.0293860	.0882
	Shaft	.526316	1.5789			.0263158	.0798
	Fillet	.00263158	.0079}	.00350878	.0105	.0350878	.1053
	Upper Diam	.0526316	.1579}*			.0263158	.0798
	Lower Diam	.0631579	.1895}			.0315790	.0947
			1.5789				
Base	Upper Torus	.00614036	.0184	.00745615	.0224	.0390351	.1171
	Fillet	.000877193	.0026	.00438597	.0132	.0359650	.1079
	Scotia	.00526316	.0158				
	Fillet	.000877193	.0026	.00701755	.0211	.0385965	.1158
	Lower Torus	.00789474	.0237	.0122808	.0368	.0438597	.1316
	Plinth	.0105264	.0316	.0122808	.0368	.0438597	.1316
			.0947				
Cap	Fillet	.00175439	.0053	.0140351	.0421	.0578948	.1734
				.0131579	.0395	.0570176	.1711
	Cyma Reversa	.00292281	.0088	.0109650	.0329	.0548246	.1645
	Corona	.00526316	.0158	.0105264	.0316	.0543860	.1631
				.00877193	.0263	.0526316	.1579
	Cyma Recta	.00233860	.0070	.000877193	.0026	.0447369	.1342
	Reed	.00175439	.0053	.00175439	.0053	.0456145	.1368
	Fillet	.00175439	.0053	.000877193	.0026	.0447369	.1342
	Frieze	.00877193	.0263			.0438597	.1316
			.0738				
Dado	Reed	.00175439	.0053	.00350878	.0105	.0473685	.1421
	Fillet	.00175439	.0053	.00263158	.0079	.0464913	.1395
	Dado	.159650	.4790			.0438597	.1313
	Fillet	.00175439	.0053	.00263158	.0079	.0464913	.1395
			.4949				
Basement	Reed	.00175439	.0053	.00438597	.0132	.0482457	.1448
				.00350878	.0105	.0473685	.1421
	Cyma Recta	.00526316	.0158	.0105264	.0316	.0543860	.1631
	Fillet	.00175439	.0053	.0105264	.0316	.0543860	.1631
	Torus	.00526316	.0158	.0140351	.0421	.0578948	.1737
	Plinth	.00701755	.0211	.0140351	.0421	.0578948	.1737
			.0633				
			3.0006				

Problem Twenty

ARCADE INTERCOLUMNIATION WITH THE CORINTHIAN ORDER WITH THE PEDESTAL

(English Measurement)

160. The height of this Order is 3.000 m. × 629.92 = 1889.76 sixteenths. PLATE XXV

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Order	Entablature ...	.157895	298.38	.0666667	125.98	.0929825	175.71
						.0263158	49.73
	Column	.631579	1193.53			.0315790	59.68
	Pedestal	.210527	397.85	.0140351	26.52	.0578948	109.41
			1889.76				
Entablature	Cornice	.0631579	119.35	.0666667	125.98	.0929825	175.71
	Frieze	.0473685	89.51			.0263158	49.73
	Architrave ...	.0473685	89.51	.00877193	16.58	.0350878	66.31
			298.37				
Column	Capital	.0736843	139.25	.0219299	41.44	.0482457	91.18
						.0263158	49.73
	Shaft	.526316	994.61			.0315790	59.68
	Base	.0315790	59.68	.0122808	23.21	.0438597	82.87
			1193.54				
Pedestal	Cap	.0245615	46.42	.0140351	26.52	.0578948	109.41
						.0438597	82.87
	Dado	.164913	311.65				
	Basement	.0210527	39.78	.0140351	26.52	.0578948	109.41
			397.85				
			1889.76				

Corinthian Arcade Intercolumniation

Height of the Order is 1889.76 sixteenths

Distance From Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening		Height of Impost	
Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
.505264	954.83	.442106	835.47	.378948	716.12	.789474	1491.92	.600000	1133.86

Impost and Archivolt of Arcade

Impost F=.0315790	Fillet	.00175439	3.32	.0105264	19.89
				.00964913	18.23
	Cyma Reversa.	.00350878	6.63	.00614036	11.60
	Fascia	.00701755	13.26	.00570176	10.77
				.00482457	9.12
	Ovolo	.00350878	6.63	.00131579	2.49
	Reed	.00175439	3.32	.00219299	4.14
	Fillet	.000877193	1.66	.00131579	2.49
	Frieze	.0105264	19.89		
	Reed	.00175439	3.32	.00219299	4.14
	Fillet	.000877193	1.66	.00131579	2.49
			59.69		
Archivolt F=.0315790	Fillet	.00175439	3.32	.00877193	16.58
				.00833334	15.75
	Cyma Reversa.	.00350878	6.63	.00570176	10.77
	Fascia³	.00877193	16.58	.00526316	9.95
				.00438597	8.29
	Ovolo	.00263158	4.97	.00175439	3.32
	Fillet	.000877193	1.66	.00175439	3.32
	Fascia²	.00701755	13.26	.000877193	1.66
	Reed	.00175439	3.32	.000877193	1.66
	Fascia¹	.00526316	9.95		
			59.69		

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Cornice	Fillet	.00175439	3.32	.0666667	125.98	.0929825	175.71
	Cyma Recta.....	.00877193	16.58				
	Fillet	.000877193	1.66	.0578948	109.41	.0842106	159.14
				.0574562	108.58	.0837720	158.31
	Cyma Reversa...	.00263158	4.97	.0552632	104.43	.0815790	154.16
	Corona	.00877193	16.58	.0548246	103.61	.0811404	153.34
				.0543860	102.78	.0807018	152.51
	Cyma Reversa...	.00263158	4.97	.0526316	99.45	.0789474	149.19
	Modillion	.0105264	19.89	.0521930	98.63	.0785088	148.36
	Fillet	.000877193	1.66	.0245615	46.42	.0508772	96.15
				.0236843	44.76	.0500000	94.49
	Ovolo	.00701755	13.26	.0166667	31.50	.0429825	81.23
	Reed	.00175439	3.32	.0175439	33.15	.0438597	82.87
	Fillet	.000877193	1.66	.0166667	31.50	.0429825	81.23
	Dentils	.0105264	19.89	.0157895	29.84	.0421053	79.57
	Fillet	.000877193	1.66	.00877193	16.58	.0350878	66.31
				.00789474	14.92	.0342106	64.65
	Cyma Reversa...	.00526316	9.95	.00263158	4.97	.0289474	54.71
			119.37				
Frieze	Reed	.00175439	3.32	.00263158	4.97	.0289474	54.71
	Fillet	.000877193	1.66	.00175439	3.32	.0280702	53.05
	Frieze	.0447369	84.54			.0263158	49.73
			89.52				
Architrave	Fillet	.00175439	3.32	.00877193	16.58	.0350878	66.31
				.00833334	15.75	.0346492	65.48
	Cyma Reversa...	.00701755	13.26	.00350878	6.63	.0298246	56.36
	Reed	.00175439	3.32	.00350878	6.63	.0298246	56.36
	Fascia³	.0122808	23.21	.00263158	4.97	.0289474	54.71
				.00219299	4.14	.0285088	53.87
	Cyma Reversa...	.00350878	6.63	.00131579	2.49	.0276316	52.22
	Fascia²	.0105264	19.89	.000877193	1.66	.0271930	51.39
	Reed	.00175439	3.32	.000877193	1.66	.0271930	51.39
	Fascia¹	.00877193	16.58			.0263158	49.73
			89.53				
Capital	Ovolo	.00350878	6.63	.0219299	41.44	.0482457	91.17
	Fillet	.00175439	3.32	.0179826	33.98	.0442983	83.71
	Abacus	.00526316	9.95	.0149123	28.18	.0412281	77.91
				.00701755	13.26	.0333334	62.99
	Lip	.00350878	6.63	.0105264	19.89	.0368422	69.62
	Cavetto	.0105264	19.89			.0368422	69.62
	Channel	.00701755	13.26			.0263158	49.73
	Drop of Upper Leaves	.00526316	9.95			.0464913	87.86
	Upper Leaves...	.0157895	29.84				
	Drop of Lower Leaves	.00526316	9.95			.0385965	72.98
	Lower Leaves...	.0157895	29.84				
			139.26				
Shaft	Astragal	.00350878	6.63)*	.00526316	9.95	.0315790	59.68
	Fillet	.00175439	3.32 (	.00307018	5.80	.0293860	55.53
	Shaft	.526316	994.61			.0263158	49.73
	Fillet	.00263158	4.97	.00350878	6.63	.0350878	66.31
	Upper Diam....	.0526316	99.46 }*			.0263158	49.73
	Lower Diam....	.0631579	119.35 (			.0315790	59.68
			994.61				
Base	Upper Torus....	.00614036	11.60	.00745615	14.09	.0390351	73.77
	Fillet	.000877193	1.66	.00438597	8.29	.0359650	67.97
	Scotia	.00526316	9.95				
	Fillet	.000877193	1.66	.00701755	13.26	.0385965	72.93
	Lower Torus....	.00789474	14.92	.0122808	23.21	.0438597	82.87
	Plinth	.0105264	19.89	.0122808	23.21	.0438597	82.87
			59.68				
Cap	Fillet	.00175439	3.32	.0140351	26.52	.0578948	109.41
				.0131579	24.87	.0570176	107.75
	Cyma Reversa...	.00292281	5.52	.0109650	20.72	.0548246	103.61
	Corona	.00526316	9.95	.0105264	19.89	.0543860	102.78
				.00877193	16.58	.0526316	99.45
	Cyma Recta.....	.00233860	4.42	.000877193	1.66	.0447369	84.54
	Reed	.00175439	3.32	.00175439	3.32	.0456141	86 20
	Fillet	.00175439	3.32	.000877193	1.66	.0447369	84.54
	Frieze	.00877193	16.58			.0438597	82.87
			46.43				
Dado	Reed	.00175439	3.32	.00350878	6.63	.0473685	89.51
	Fillet	.00175439	3.32	.00263158	4.97	.0464913	87.86
	Dado	.159650	301.70			.0438597	82.87
	Fillet	.00175439	3.32	.00263158	4.97	.0464913	87.86
			311.66				
Basement	Reed	.00175439	3.32	.00438597	8.29	.0482457	91.17
				.00350878	6.63	.0473685	89.51
	Cyma Recta.....	.00526316	9.95	.0105264	19.89	.0543860	102.78
	Fillet	.00175439	3.32	.0105264	19.89	.0543860	102.78
	Torus	.00526316	9.95	.0140351	26.52	.0578948	109.41
	Plinth	.00701755	13.26	.0140351	26.52	.0578948	109.41
			39.80				
			1889.86				

PART FOURTEEN

Problem Twenty-One

CAPITAL OF THE COMPOSITE ORDER WITH THE PEDESTAL

161.

PLATE XXVI

(Metric Measurement)

The height of this Order is 5.000 meters.

Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
	Factor	Meters	Factor	Meters	Factor	Meters
Ovolo	.00263158	.0132	.0228071	.1140	.0491229	.2456
Fillet	.000877193	.0044	.0192983	.0965	.0456141	.2281
Abacus	.00701755	.0351	.0157895	.0789	.0421053	.2105
Channel	.00350878	.0175			.0263158	.1316
			.00877193	.0439	.0350878	.1754
Ovolo	.00701755	.0351	.00175439	.0088	.0280702	.1403
Reed	.00263158	.0132	.00307018	.0154	.0293860	.1469
Fillet	.000877193	.0044	.00175439	.0088	.0280702	.1403
Channel of the Volute.	.00701755	.0351			.0263158	.1316
Drop of Upper Leaves	.00526316	.0263	.0201755	.1009	.0464913	.2325
Upper Leaves	.0157895	.0789				
Drop of Lower Leaves	.00526316	.0263	.0122808	.0614	.0385965	.1925
Lower Leaves	.0157895	.0789				
		.3684				

Capital F=.0736843

"Sommoscapo" (Upper Point of Shaft)

Name	Factor	Meters	Factor	Meters	Factor	Meters
Astragal	.00350878	.0175	.00526316	.0263	.0315790	.1579
Fillet	.00175439	.0088	.00307018	.0154	.0293860	.1469
Shaft					.0263158	.1316

"Imoscapo" (Lower Point of Shaft)

Name	Factor	Meters	Factor	Meters	Factor	Meters
Shaft					.0315790	.1579
Fillet	.00263158	.0132	.00350878	.0175	.0350878	.1754

Modern or Attic Base

Name	Factor	Meters	Factor	Meters	Factor	Meters
Upper Torus	.00614036	.0307	.00745615	.0373	.0390351	.1952
Fillet	.000877193	.0044	.00438597	.0219	.0359650	.1789
Scotia	.00526316	.0263				
Fillet	.000877193	.0044	.00701755	.0351	.0385965	.1930
Lower Torus	.00789474	.0395	.0122808	.0614	.0438597	.2193
Plinth	.0105264	.0526	.0122808	.0614	.0438597	.2193
		.1579				

Base F=.0315790

(English Measurement)

The height of this Order is 5.000 m.×629.92=3149.60 sixteenths.

Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
	Factor	Sixteenths	Factor	Sixteenths	Factor	Sixteenths
Ovolo	.00263158	8.29	.0228071	71.83	.0491229	154.72
Fillet	.000877193	2.76	.0192983	60.78	.0456141	143.67
Abacus	.00701755	22.10	.0157895	49.73	.0421053	132.61
Channel	.00350878	11.05			.0263158	82.88
			.00877193	27.63	.0350878	110.51
Ovolo	.00701755	22.10	.00175439	5.53	.0280702	88.41
Reed	.00263158	8.29	.00307018	9.67	.0293860	92.56
Fillet	.000877193	2.76	.00175439	5.83	.0280702	88.41
Channel of the Volute.	.00701755	22.10			.0263158	82.88
Drop of Upper Leaves	.00526316	16.58	.0201755	63.54	.0464913	149.20
Upper Leaves	.0157895	49.73				
Drop of Lower Leaves	.00526316	16.58	.0122808	38.68	.0385965	124.33
Lower Leaves	.0157895	49.73				
		232.07				

Capital F=.0736843

"Sommoscapo" (Upper Point of Shaft)

Name	Factor	Sixteenths	Factor	Sixteenths	Factor	Sixteenths
Astragal	.00350878	11.05	.00526316	16.58	.0315790	99.46
Fillet	.00175439	5.53	.00307018	9.67	.0293860	92.56
Shaft					.0263158	82.88

"Imoscapo" (Lower Point of Shaft)

Name	Factor	Sixteenths	Factor	Sixteenths	Factor	Sixteenths
Shaft					.0315790	99.46
Fillet	.00263158	8.29	.00350878	11.05	.0350878	110.51

Modern or Attic Base

Name	Factor	Sixteenths	Factor	Sixteenths	Factor	Sixteenths
Upper Torus	.00614036	19.34	.00745615	23.48	.0390351	122.94
Fillet	.000877193	2.76	.00438597	13.81	.0359650	113.28
Scotia	.00526316	16.58				
Fillet	.000877193	2.76	.00701755	22.10	.0385965	121.56
Lower Torus	.00789474	24.87	.0122808	38.68	.0438597	138.14
Plinth	.0105264	33.15	.0122808	38.68	.0438597	138.14
		99.46				

Base F=.0315790

Problem Twenty-One

CAPITAL OF THE COMPOSITE ORDER

162. This Problem illustrates how to use "Table Three," page 46, Art. 99. **PLATE XXVI**

Order WITH the Pedestal		Order WITHOUT the Pedestal

Height of Order=5.000 meters×629.92=3149.60 sixteenths Height of Order=3.9474 meters×629.92=2486.55 sixteenths

Quota	Factor	Proportion in Metric Measurement	Proportion in English Measurement	Quota	Factor	Proportion in Metric Measurement	Proportion in English Measurement
½	.000877193	.0044	2.76	½	.00111112	.0044	2.76
1	.00175439	.0088	5.53	1	.00222223	.0088	5.53
1½	.00263158	.0132	8.29	1½	.00333334	.0132	8.29
1¾	.00307018	.0154	9.67	1¾	.00388889	.0154	9.67
2	.00350878	.0175	11.05	2	.00444445	.0175	11.05
2½	.00438597	.0219	13.81	2½	.00555556	.0219	31.81
3	.00526316	.0263	16.58	3	.00666667	.0263	16.58
3½	.00614036	.0307	19.34	3½	.00777778	.0307	19.34
4	.00701755	.0351	22.10	4	.00888889	.0351	22.10
4¼	.00745615	.0373	23.48	4¼	.00944445	.0373	23.48
4½	.00789474	.0395	24.87	4½	.0100000	.0395	24.87
5	.00877193	.0439	27.63	5	.0111112	.0439	27.63
6	.0105264	.0526	33.15	6	.0133334	.0526	33.15
7	.0122808	.0614	38.68	7	.0155556	.0614	38.68
7½	.0131579	.0658	41.44	7½	.0166667	.0658	41.44
8	.0140351	.0702	44.20	8	.0177778	.0702	44.20
9	.0157895	.0789	49.73	9	.0200000	.0789	49.73
10	.0175439	.0877	55.26	10	.0222223	.0877	55.26
10½	.0184211	.0921	58.02	10½	.0233334	.0921	58.02
11	.0192983	.0965	60.78	11	.0244445	.0965	60.78
11¾	.0206141	.1031	64.92	11¾	.0261112	.1031	64.92
12	.0210527	.1053	66.31	12	.0266667	.1053	66.31
13	.0228071	.1140	71.83	13	.0288889	.1140	71.83
15	.0263158	.1316	82.88	15	.0333334	.1316	82.88
16	.0280702	.1404	88.41	16	.0355556	.1404	88.41
16¾	.0293860	.1469	92.56	16¾	.0372223	.1469	92.56
17	.0298246	.1491	93.94	17	.0377778	.1491	93.94
18	.0315790	.1579	99.46	18	.0400000	.1579	99.46
19	.0333334	.1667	104.99	19	.0422223	.1667	104.99
20	.0350878	.1754	110.51	20	.0444445	.1754	110.51
20½	.0359650	.1798	113.28	20½	.0455556	.1798	113.28
21	.0368422	.1842	116.04	21	.0466667	.1842	116.04
22	.0385965	.1930	121.56	22	.0488889	.1930	121.56
22¼	.0390351	.1952	122.94	22¼	.0494445	.1952	122.94
24	.0421053	.2105	132.61	24	.0533334	.2105	132.61
25	.0438597	.2193	138.14	25	.0555556	.2193	138.14
25½	.0447369	.2237	140.90	25½	.0566667	.2237	140.90
26	.0456141	.2281	143.67	26	.0577778	.2281	143.67
28	.0491229	.2456	154.72	28	.0622223	.2456	154.72
31	.0543860	.2719	171.29	31	.0688889	.2719	171.29
34	.0596492	.2982	187.87	34	.0755556	.2982	187.87
36	.0631579	.3158	198.92	36	.0800000	.3158	198.92
42	.0736843	.3684	132.08	42	.0933334	.3648	132.08
26½	.0464913	.2325	146.43	26½	.0588889	.2325	146.43

Problem Twenty-Two

THE COMPOSITE ORDER WITH THE PEDESTAL

(Metric Measurement)

The height of this Order is 5.000 meters.

163. **PLATE XXVII**

Left Table

	Name of Member	Height Factor	Height Meters	Projection From Face of Column Factor	Projection From Face of Column Meters	Projection From Axis of Column Factor	Projection From Axis of Column Meters
Order	Entablature	.157895	.7895	.0631579	.3158	.0894737	.4473
						.0263158	.1316
	Column	.631579	3.1579			.0315790	.1579
	Pedestal	.210527	1.0526	.0140351	.0702	.0578948	.2895
			5.0000				
Entablature	Cornice	.0631579	.3158	.0631579	.3158	.0894737	.4473
	Frieze	.0473685	.2368			.0263158	.1316
	Architrave	.0473685	.2368	.0122808	.0614	.0385965	.1930
			.7894				
Column	Capital	.0736843	.3684	.0228071	.1140	.0491229	.2456
						.0263158	.1316
	Shaft	.526316	2.6316			.0315790	.1579
	Base	.0315790	.1579	.0122808	.0614	.0438597	.2193
			3.1579				
Pedestal	Cap	.0245615	.1228	.0140351	.0702	.0578948	.2895
	Dado	.164913	.8246			.0438597	.2193
	Basement	.0210527	.1053	.0140351	.0702	.0578948	.2895
			1.0527				
			5.0000				

Modern Base

	Name	Height Factor	Height Meters	Face Factor	Face Meters	Axis Factor	Axis Meters
Base F.=.0315790	Upper Torus	.00614036	.0307	.00745615	.0373	.0390351	.1952
	Fillet	.000877193	.0044	.00438597	.0219	.0359650	.1798
	Scotia	.00526316	.0263				
	Fillet	.000877193	.0044	.00701755	.0351	.0385965	.1930
	Lower Torus	.00789474	.0395	.0122808	.0614	.0438597	.2193
	Plinth	.0105264	.0526	.0122808	.0614	.0438597	.2193
			.1579				

Impost and Archivolt of Arcade

	Name	Height Factor	Height Meters	Face Factor	Face Meters		
Impost F.=.0315790	Fillet	.00175439	.0088	.0105264	.0526		
				.0105264	.0526		
	Cavetto	.00350878	.0175	.00701755	.0351		
	Fascia	.00614036	.0307	.00657895	.0329		
	Fillet	.000877193	.0044	.00614036	.0307		
				.00614036	.0307		
	Cyma Recta	.00526316	.0263	.000877193	.0044		
	Reed	.00175439	.0088	.00175439	.0088		
	Fillet	.000877193	.0044	.000877193	.0044		
	Frieze	.00877193	.0439				
	Reed	.00175439	.0088	.00263158	.0132		
	Fillet	.000877193	.0044	.00175439	.0088		
			.1580				
Archivolt F.=.0315790	Fillet	.00175439	.0088	.00701755	.0351		
				.00657895	.0329		
	Cyma Reversa	.00526313	.0263	.00263158	.0132		
	Fillet	.00175439	.0088	.00219299	.0110		
	Fascia²	.0114036	.0570	.00175439	.0088		
	Reed	.00263158	.0132	.00131579	.0066		
	Fascia¹	.00877193	.0439				
			.1580				

Right Table

	Name of Moulding	Height Factor	Height Meters	Projection From Face of Column Factor	Projection From Face of Column Meters	Projection From Axis of Column Factor	Projection From Axis of Column Meters
Cornice	Fillet	.00263158	.0132	.0631579	.3158	.0894737	.4473
	Cyma Recta	.00877193	.0439				
	Fillet	.00175439	.0088	.0526316	.2632	.0789474	.3947
				.0517744	.2589	.0780702	.3904
	Cyma Reversa	.00350878	.0175	.0482457	.2412	.0745615	.3728
	Reed	.00175439	.0088	.0482457	.2412	.0745615	.3728
	Corona	.00964913	.0482	.0473685	.2368	.0736843	.3684
				.0438597	.2193	.0701755	.3509
	Cyma Recta	.00350878	.0175	.0289474	.1447	.0552632	.2763
	Fillet	.00175439	.0088	.0289474	.1447	.0552632	.2763
				.0280702	.1404	.0543860	.2719
	Cyma Reversa	.00701755	.0351	.0219299	.1096	.0482457	.2412
	Dentils	.0122808	.0614	.0210527	.1053	.0473685	.2228
	Fillet	.00175439	.0088	.0122808	.0614	.0385965	.1930
				.0114036	.0570	.0377193	.1886
	Ovolo	.00877193	.0439	.00263158	.0132	.0289474	.1447
			.3159				
Frieze	Reed	.00263158	.0132	.00307018	.0154	.0293860	.1469
	Fillet	.000877193	.0044	.00175439	.0088	.0280702	.1404
	Frieze	.0438597	.2193			.0263158	.1316
			.2369				
Architrave	Fillet	.00175439	.0088	.0122808	.0614	.0385965	.1930
				.0122808	.0614	.0385965	.1930
	Cavetto	.00350878	.0175	.00877193	.0439	.0350878	.1754
				.00833334	.0417	.0346492	.1732
	Ovolo	.00526316	.0263	.00307018	.0154	.0293860	.1469
	Reed	.00175439	.0088	.00394737	.0197	.0302632	.1513
	Fascia²	.0175439	.0877	.00307018	.0154	.0293860	.1469
				.00263158	.0132	.0289474	.1447
	Cyma Reversa	.00350878	.0175	.000877193	.0044	.0271930	.1360
	Fascia¹	.0140351	.0702			.0263158	.1316
			.2368				
Capital	Ovolo	.00263158	.0132	.0228071	.1140	.0491229	.2456
	Fillet	.000877193	.0044	.0192983	.0965	.0456141	.2281
	Abacus	.00701755	.0351	.0157895	.0789	.0421053	.2105
	Channel	.00350878	.0175			.0263158	.1316
				.00877193	.0439	.0350878	.1754
	Ovolo	.00701755	.0351	.00175439	.0088	.0280702	.1402
	Reed	.00263158	.0132	.00307018	.0154	.0293860	.1469
	Fillet	.000877193	.0044	.00175439	.0088	.0280702	.1403
	Channel	.00701755	.0351			.0263158	.1316
	Drop of Upper Leaves	.00526316	.0263	.0201755	.1009	.0464913	.2325
	Upper Leaves	.0157895	.0789				
	Drop of Lower Leaves	.00526316	.0263	.0122808	.0614	.0389565	.1925
	Lower Leaves	.0157895	.0789				
			.3684				
Shaft	Astragal	.00350878	.0175	.00526316	.0263	.0315790	.1579
	Fillet	.00175439	.0088	.00307018	.0154	.0293860	.1469
						.0263158	.1316
	Shaft	.526316	2.6316			.0315790	.1579
	Fillet	.00263158	.0132	.00350878	.0175	.0350878	.1754
	Upper Diam	.0526316	.2632			.0263158	.1316
	Lower Diam	.0631579	.3158			.0315790	.1579
			2.6316				
Base	Upper Torus	.00526316	.0263	.00701755	.0351	.0285965	.1930
	Fillet	.000438597	.0022	.00438597	.0219	.0359650	.1798
	Upper Scotia	.00233860	.0117				
	Fillet	.000438597	.0022	.00614036	.0307	.0377193	.1886
	Reed	.00175439	.0088	.00701755	.0351	.0385965	.1930
	Fillet	.000438597	.0022	.00614036	.0307	.0377193	.1886
	Lower Scotia	.00292281	.0146				
	Fillet	.000438597	.0022	.00877193	.0439	.0403509	.2018
	Lower Torus	.00701755	.0351	.0122808	.0614	.0438597	.2193
	Plinth	.0105264	.0526	.0122808	.0614	.0438597	.2193
			.1579				
Cap	Fillet	.00116843	.0058	.0140351	.0702	.0578948	.2895
				.0135965	.0680	.0574562	.2873
	Cyma Reversa	.00233860	.0117	.0109650	.0548	.0548246	.2741
	Corona	.00526316	.0263	.0105264	.0526	.0543860	.2719
				.00789474	.0395	.0517744	.2589
	Cyma Recta	.00263158	.0132	.00394737	.0197	.0478071	.2390
	Fillet	.000877193	.0044	.00394737	.0197	.0478071	.2390
				.00394737	.0197	.0478071	.2390
	Cavetto	.00350878	.0175	.000438597	.0022	.0442983	.2215
	Frieze	.00877193	.0439			.0438597	.2193
			.1228				
Dado	Reed	.00175439	.0088	.00350878	.0175	.0473685	.2368
	Fillet	.00175439	.0088	.00263158	.0132	.0464913	.2325
	Dado	.159650	.7983			.0438597	.2193
	Fillet	.00175439	.0088	.00263158	.0132	.0464913	.2325
			.8247				
Basement	Reed	.00175439	.0088	.00394737	.0197	.0478071	.2390
				.00438597	.0219	.0482457	.2412
	Cyma Recta	.00526316	.0263	.0105264	.0526	.0543860	.2716
	Fillet	.00175439	.0088	.0114036	.0570	.0552632	.2763
	Torus	.00526316	.0263	.0140351	.0702	.0578948	.2895
	Plinth	.00701755	.0351	.0140351	.0702	.0578948	.2895
			.1053				
			5.0003				

Problem Twenty-Two

THE COMPOSITE ORDER WITH THE PEDESTAL

(English Measurement)

164.

The height of this Order is 5.000 m. × 629.92=3149.60 sixteenths.

PLATE XXVII

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Order	Entablature ..	.157895	497.31	.0631579	198.92	.0894737	281.81
						.0263158	82.88
	Column	.631579	1989.22			.0315790	99.46
	Pedestal	.210527	663.08	.0140351	44.20	.0578948	182.35
			3149.61				
Entablature	Cornice	.0631579	198.92	.0631579	198.92	.0894737	281.81
	Frieze	.0473685	149.19			.0263158	82.88
	Architrave ...	.0473685	149.19	.0122808	38.68	.0385965	121.56
			497.30				
Column	Capital	.0736843	232.08	.0228071	71.84	.0491229	154.72
						.0263158	82.88
	Shaft	.526316	1657.67			.0315790	99.46
	Base	.0315790	99.46	.0122808	38.68	.0438597	138.14
			1989.21				
Pedestal	Cap	.0245615	77.38	.0140351	44.20	.0578948	182.35
	Dado	.164913	519.41			.0438597	138.14
	Basement	.0210527	66.31	.0140351	44.20	.0578948	182.35
			663.10				
			3149.62				

Modern Base

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Base F=.0315790	Upper Torus..	.00614036	19.34	.00745615	23.48	.0390351	122.95
	Fillet	.000877193	2.76	.00438597	13.81	.0359650	113.28
	Scotia	.00526316	16.58				
	Fillet	.000877193	2.76	.00701755	22.10	.0385965	121.56
	Lower Torus..	.00789474	24.87	.0122808	38.68	.0438597	138.14
	Plinth	.0105264	33.15	.0122808	38.68	.0438597	138.14
			99.46				

Impost and Archivolt of Arcade

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Impost F=.0315790	Fillet	.00175439	5.53	.0105264	33.15		
				.0105264	33.15		
	Cavetto	.00350878	11.05	.00701755	22.10		
	Fascia	.00614036	19.34	.00657895	20.72		
	Fillet	.000877193	2.76	.00614036	19.34		
				.00614036	19.34		
	Cyma Recta...	.00526316	16.58	.000877193	2.76		
	Reed	.00175439	5.53	.00175439	5.53		
	Fillet	.000877193	2.76	.000877193	2.76		
	Frieze	.00877193	27.63				
	Reed	.00175439	5.53	.00263158	8.29		
	Fillet	.000877193	2.76	.00175439	5.53		
			99.47				
Archivolt F=.0315790	Fillet	.00175439	5.53	.00701755	22.10		
				.00657895	20.72		
	Cyma Reversa	.00526316	16.58	.00263158	8.29		
	Fillet	.00175439	5.53	.00219299	6.91		
	Fascia²	.0114036	35.92	.00175439	5.53		
	Reed	.00263158	8.29	.00131579	4.14		
	Fascia¹	.00877193	27.63				
			99.47				

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Cornice	Fillet	.00263158	8.29	.0631579	198.92	.0894737	281.81
	Cyma Recta.....	.00877193	27.63				
	Fillet	.00175439	5.53	.0526316	165.77	.0789474	248.65
				.0517744	163.07	.0780702	245.89
	Cyma Reversa...	.00350878	11.05	.0482457	151.95	.0745615	234.84
	Reed	.00175439	5.53	.0482457	151.95	.0745615	234.84
	Corona	.00964913	30.39	.0473685	149.19	.0736843	232.08
				.0438597	138.14	.0701755	221.02
	Cyma Recta.....	.00350878	11.05	.0289474	91.17	.0552632	174.06
	Fillet	.00175439	5.53	.0289474	91.17	.0552632	174.06
				.0280702	88.41	.0543860	171.29
	Cyma Reversa...	.00701755	22.10	.0219299	69.08	.0482457	151.95
	Dentils	.0122808	38.68	.0210527	66.31	.0473685	149.19
	Fillet	.00175439	5.53	.0122808	38.68	.0385965	121.56
				.0114036	35.92	.0377193	118.80
	Ovolo	.00877193	27.63	.00263158	8.29	.0289474	91.17
			198.94				
Frieze	Reed	.00263158	8.29	.00307018	9.67	.0293860	92.56
	Fillet	.000877193	2.76	.00175439	5.53	.0280702	88.41
	Frieze	.0438597	138.14			.0263158	82.88
			149.19				
Architrave	Fillet	.00175439	5.53	.0122808	38.68	.0385965	121.56
				.0122808	38.68	.0385965	121.56
	Cavetto	.00350878	11.05	.00877193	27.63	.0350878	110.51
				.00833334	26.25	.0346492	109.13
	Ovolo	.00526316	16.58	.00307018	9.76	.0293860	92.56
	Reed	.00175439	5.53	.00394737	12.43	.0302632	95.32
	Fascia²	.0175439	55.26	.00307018	9.67	.0293860	92.56
				.00263158	8.29	.0289474	91.17
	Cyma Reversa...	.00350878	11.05	.000877193	2.76	.0271930	85.65
	Fascia¹	.0140351	44.20			.0263158	82.88
			149.20				
Capital	Ovolo	.00263158	8.29	.0228071	71.83	.0491229	154.72
	Fillet	.000877193	2.76	.0192983	60.78	.0456141	143.67
	Abacus	.00701755	22.10	.0157895	49.73	.0421053	132.61
	Channel	.00350878	11.05			.0263158	82.88
				.00877193	27.63	.0350878	110.51
	Ovolo	.00701755	22.10	.00175439	5.53	.0280702	88.41
	Reed	.00263158	8.29	.00307018	9.67	.0293860	92.56
	Fillet	.000877193	2.76	.00175439	5.53	.0280702	88.41
	Channel	.00701755	22.10			.0263158	82.88
	Drop of Upper Leaves	.00526316	16.58	.0201755		.0464913	146.42
	Upper Leaves...	.0157895	49.73				
	Drop of Lower Leaves	.00526316	16.58	.0122808	38.68	.0385965	121.56
	Lower Leaves...	.0157895	49.73				
			232.07				
Shaft	Astragal	.00350878	11.05)*	.00526316	16.58	.0315790	99.46
	Fillet	.00175439	5.53(	.00307018	9.67	.0293860	92.56
						.0263158	82.88
	Shaft	.526316	1657.67			.0315790	99.46
	Fillet	.00263158	8.29)	.00350878	11.05	.0350878	110.51
	Upper Diam....	.0526316	165.77)*			.0263158	82.88
	Lower Diam....	.0631579	198.92(			.0315790	99.46
			1657.67				
Base	Upper Torus....	.00526316	16.58	.00701755	22.10	.0385965	121.56
	Fillet	.000438597	1.38	.00438597	13.81	.0359650	113.28
	Upper Scotia....	.00233860	7.37				
	Fillet	.000438597	1.38	.00614036	19.34	.0377193	118.80
	Reed	.00175439	5.53	.00701755	22.10	.0385965	121.56
	Fillet	.000438597	1.38	.00614036	19.34	.0377193	118.80
	Lower Scotia....	.00292281	9.21				
	Fillet	.000438597	1.38	.00877193	27.63	.0403509	127.09
	Lower Torus....	.00701755	22.10	.0122808	38.68	.0438597	138.14
	Plinth	.0105264	33.15	.0122808	38.68	.0438597	138.14
			99.46				
Cap	Fillet	.00116843	3.68	.0140351	44.20	.0578948	182.35
				.0135965	42.83	.0574562	180.96
	Cyma Reversa...	.00233860	7.37	.0109650	34.54	.0548246	172.68
	Corona	.00526316	16.58	.0105264	33.15	.0543860	171.29
				.00789474	24.87	.0517744	163.07
	Cyma Recta.....	.00263158	8.29	.00394737	12.43	.0478071	150.57
	Fillet	.000877193	2.76	.00394737	12.43	.0478071	150.57
				.00394737	12.43	.0478071	150.57
	Cavetto	.00350878	11.05	.000438597	1.38	.0442983	139.52
	Frieze	.00877193	27.65			.0438597	138.14
			77.36				
Dado	Reed	.00175439	5.53	.00350878	11.05	.0473685	149.19
	Fillet	.00175439	5.53	.00263158	8.29	.0464913	146.43
	Dado	.159650	502.83			.0438597	138.14
	Fillet	.00175439	5.53	.00263158	8.29	.0464913	146.43
			519.42				
Basement	Reed	.00175439	5.53	.00394737	12.43	.0478071	150.57
				.00438597	13.81	.0482457	151.95
	Cyma Recta.....	.00526316	16.58	.0105264	13.15	.0543860	171.29
	Fillet	.00175439	5.53	.0114036	35.92	.0552632	174.06
	Torus	.00526316	16.58	.0140351	44.20	.0578948	182.35
	Plinth	.00701755	22.10	.0140351	44.20	.0578948	182.35
			66.32				
			3149.63				

Problem Twenty-Three

SIMPLE INTERCOLUMNIATION WITH THE COMPOSITE ORDER

(Without the Pedestal)

(Metric Measurement)

165. The height of this Order is 3.000 meters   **PLATE XXVIII**

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Meters	Factor	Meters	Factor	Meters
Order	Entablature	.200000	.6000	.0800000	.2400	.113334	.3400
						.0333334	.1000
	Column	.800000	2.4000			.0400000	.1200
			3.0000				
Entablature	Cornice	.0800000	.2400	.0800000	.2400	.113334	.3400
	Frieze	.0600000	.1800			.0333334	.1000
	Architrave	.0600000	.1800	.0155556	.0467	.0488889	.1467
			.6000				
Column	Capital	.0933334	.2800	.0288889	.0867	.0622223	.1867
						.0333334	.1000
						.0400000	.1200
	Shaft	.666667	2.0000				
	Base	.0400000	.1200	.0155556	.0467	.0555556	.1667
			2.4000				
			3.0000				

Simple Composite Intercolumniation

Height of the Order is 3.000 meters

Distance From Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening	
Factor	Meters	Factor	Meters	Factor	Meters	Factor	Meters
.266667	.8000	.186667	.5600	.186667	.5600	.800000	2.4000

N. B.—Metric measurements × 629.92 = sixteenths of an inch.

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Meters	Factor	Meters	Factor	Meters
Cornice	Fillet	.00333334	.0100	.0800000	.2400	.113333	.3400
	Cyma Recta........	.0111112	.0333				
	Fillet	.00222223	.0067	.0666667	.2000	.100000	.3000
				.0655556	.1967	.0988889	.2967
	Cyma Reversa......	.00444445	.0133	.0611112	.1833	.0944445	.2833
	Reed	.00222223	.0067	.0611112	.1833	.0944445	.2833
	Corona	.0122223	.0367	.0600000	.1800	.0933334	.2800
				.0555556	.1667	.0888889	.2667
	Cyma Recta........	.00444445	.0133	.0366667	.1100	.0700000	.2100
	Fillet	.00222223	.0067	.0366667	.1100	.0700000	.2100
				.0355556	.1067	.0688889	.2067
	Cyma Reversa......	.00888889	.0267	.0277778	.0833	.0611112	.1833
	Dentils	.0155556	.0467	.0266667	.0800	.0600000	.1800
	Fillet	.00222223	.0067	.0155556	.0467	.0488889	.1467
				.0144445	.0433	.0477778	.1433
	Ovolo	.0111112	.0333	.00333334	.0100	.0366667	.1100
			.2401				
Frieze	Reed	.00333334	.0100	.00296223	.0089	.0372223	.1117
	Fillet	.00111112	.0033	.00222223	.0067	.0355556	.1067
	Frieze	.0555556	.1667			.0333334	.1000
			.1800				
Architrave	Fillet	.00222223	.0067	.0155556	.0467	.0488889	.1467
				.0155556	.0467	.0488889	.1467
	Cavetto	.00444445	.0133	.0111112	.0333	.0444445	.1333
				.0105556	.0317	.0438889	.1317
	Ovolo	.00666667	.0200	.00388889	.0117	.0372223	.1117
	Reed	.00222223	.0067	.00500000	.0150	.0383334	.1150
	Fascia[2]	.0222223	.0667	.00388889	.0117	.0372223	.1117
				.00333334	.0100	.0366667	.1100
	Cyma Reversa......	.00444445	.0133	.00111112	.0033	.0344445	.1033
	Fascia[1]	.0177778	.0533			.0333334	.1000
			.1800				
Capital	Ovolo	.00333334	.0100	.0288889	.0867	.0622223	.1867
	Fillet	.00111112	.0033	.0244445	.0733	.0577778	.1733
	Abacus	.00888889	.0267	.0200000	.0600	.0533334	.1600
	Channel	.00444445	.0133			.0333334	.1000
				.0111112	.0333	.0444445	.1333
	Ovolo	.00888889	.0267	.00222223	.0067	.0355556	.1067
	Reed	.00333334	.0100	.00388889	.0117	.0372223	.1117
	Fillet	.00111112	.0033	.00222223	.0067	.0355556	.1067
	Channel	.00888889	.0267			.0333334	.1000
	Drop of Upper Leaves	.00666667	.0200			.0588889	.1767
	Upper Leaves......	.0200000	.0600				
	Drop of Lower Leaves	.00666667	.0200			.0488889	.1467
	Lower Leaves......	.0200000	.0600				
			.2800				
Shaft	Astragal	.00444445	.0133 }*	.00666667	.0200	.0400000	.1200
	Fillet	.00222223	.0067 }	.00388889	.0117	.0372223	.1117
	Shaft	.666667	2.0000			.0333334	.1000
	Fillet	.00333334	.0100 }	.00444445	.0133	.0444445	.1333
	Upper Diam........	.0666667	.2000 }*			.0333334	.1000
	Lower Diam........	.0800000	.2400 }			.0400000	.1200
			2.0000				
Base	Upper Torus........	.00777778	.0233	.00944445	.0283	.0494445	.1483
	Fillet	.00111112	.0033	.00555556	.0167	.0455556	.1367
	Scotia	.00666667	.0200				
	Fillet	.00111112	.0033	.00888889	.0267	.0488889	.1467
	Lower Torus........	.0100000	.0300	.0155556	.0467	.0555556	.1667
	Plinth	.0133334	.0400	.0155556	.0467	.0555556	.1667
			.1199				
			3.0000				

Problem Twenty-three

SIMPLE INTERCOLUMNIATION WITH THE COMPOSITE ORDER

(English Measurement)

166. The height of this Order is 3.000 m.×629.92=1889.76 sixteenths   **PLATE XXVIII**

	Name of Member	Height Factor	Six-teenths	Projection From Face of Column Factor	Six-teenths	Projection From Axis of Column Factor	Six-teenths
Order	Entablature	.200000	377.95	.0800000	151.18	.113334	214.17
						.0333334	62.99
	Column	.800000	1511.81			.0400000	75.59
			1889.76				
Entablature	Cornice	.0800000	151.18	.0800000	151.18	.113334	214.17
	Frieze	.0600000	113.39			.0333334	62.99
	Architrave	.0600000	113.39	.0155556	29.40	.0488889	92.40
			377.96				
Column	Capital	.0933334	176.38	.0288889	54.59	.0622223	117.59
						.0333334	62.99
	Shaft	.666667	1259.84			.0400000	75.59
	Base	.0400000	75.59	.0155556	29.40	.0555556	104.99
			1511.81				
			1889.77				

	Name of Moulding	Height Factor	Six-teenths	Projection From Face of Column Factor	Six-teenths	Projection From Axis of Column Factor	Six-teenths
Cornice	Fillet	.00333334	6.30	.0800000	151.18	.113334	214.17
	Cyma Recta	.0111112	21.00				
	Fillet	.00222223	4.20	.0666667	125.98	.100000	188.98
				.0655556	123.88	.0988889	186.88
	Cyma Reversa..	.00444445	8.40	.0611112	115.49	.0944445	178.48
	Reed	.00222223	4.20	.0611112	115.49	.0944445	178.48
	Corona	.0122223	23.10	.0600000	113.39	.0933334	176.38
				.0555556	104.99	.0888889	167.98
	Cyma Recta.....	.00444445	8.40	.0366667	69.29	.0700000	132.28
	Fillet	.00222223	4.20	.0366667	69.29	.0700000	132.28
				.0355556	67.19	.0688889	130.18
	Cyma Reversa..	.00888889	16.80	.0277778	52.49	.0611112	115.49
	Dentils	.0155556	29.40	.0266667	50.39	.0600000	113.39
	Fillet	.00222223	4.20	.0155556	29.40	.0488889	92.40
				.0144445	27.30	.0477778	90.29
	Ovolo	.0111112	21.00	.00333334	6.30	.0366667	69.29
			151.20				
Frieze	Reed	.00333334	6.30	.00296223	5.60	.0372223	70.34
	Fillet	.00111112	2.10	.00222223	4.20	.0355556	67.19
	Frieze	.0555556	104.99			.0333334	62.99
			113.39				
Architrave	Fillet	.00222223	4.20	.0155556	29.40	.0488889	92.40
				.0155556	29.40	.0488889	92.40
	Cavetto	.00444445	8.40	.0111112	21.00	.0444445	83.99
				.0105556	19.95	.0438889	82.94
	Ovolo	.00666667	12.60	.00388889	7.35	.0372223	70.34
	Reed	.00222223	4.20	.00500000	9.45	.0383334	72.44
	Fascia²	.0222223	41.99	.00388889	7.35	.0372223	70.34
				.00333334	6.30	.0366667	69.29
	Cyma Reversa..	.00444445	8.40	.00111112	2.10	.0344445	65.09
	Fascia¹	.0177778	33.60			.0333334	62.99
			113.39				
Capital	Ovolo	.00333334	6.30	.0288889	54.59	.0622223	117.59
	Fillet	.00111112	2.10	.0244445	46.19	.0577778	109.20
	Abacus	.00888889	16.80	.0200000	37.80	.0533334	100.79
	Channel	.00444445	8.40			.0333334	62.99
				.0111112	21.00	.0444445	83.99
	Ovolo	.00888889	16.80	.00222223	4.20	.0355556	67.19
	Reed	.00333334	6.30	.00388889	7.35	.0372223	70.34
	Fillet	.00111112	2.10	.00222223	4.20	.0355556	67.19
	Channel	.00888889	16.80			.0333334	62.99
	Drop of Upper Leaves.	.00666667	12.60			.0588889	110.28
	Upper Leaves...	.0200000	37.80				
	Drop of Lower Leaves.	.00666667	12.60			.0488889	92.40
	Lower Leaves...	.0200000	37.80				
			176.40				
Shaft	Astragal	.00444445	8.40 *	.00666667	12.60	.0400000	75.59
	Fillet	.00222223	4.20	.00388889	7.35	.0372223	70.34
	Shaft	.666667	1259.84			.0333334	62.99
	Fillet	.00333334	6.30	.00444545	8.40	.0444445	83.99
	Upper Diam.....	.0666667	125.98 *			.0333334	62.99
	Lower Diam.....	.0800000	151.18			.0400000	75.59
			1259.84				
Base	Upper Torus....	.00777778	14.70	.00944445	17.85	.0494445	93.44
	Fillet	.00111112	2.10	.00555556	10.50	.0455556	86.09
	Scotia	.00666667	12.60				
	Fillet	.00111112	2.10	.00888889	16.80	.0488889	92.40
	Lower Torus....	.0100000	18.90	.0155556	29.40	.0555556	104.99
	Plinth	.0133334	25.20	.0155556	29.40	.0555556	104.99
			75.60				
			1889.82				

Simple Composite Intercolumniation

Height of the Order is 1889.76 sixteenths

Distance From Axis to Axis Factor	Six-teenths	Distance Between Columns Factor	Six-teenths	Width of Opening Factor	Six-teenths	Height of Opening Factor	Six-teenths
.266667	503.94	.186667	352.76	.186667	352.76	.800000	1511.81

N. B.—English measurements×.0015875=meters.

Problem Twenty-four

ARCADE INTERCOLUMNIATION WITH THE COMPOSITE ORDER WITHOUT THE PEDESTAL

(Metric Measurement)

167. The height of this Order is 2.3684 meters. **PLATE XXIX**

Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
	Factor	Meters	Factor	Meters	Factor	Meters
Order Entablature	.200000	.4737	.0800000	.1895	.113334	.2684
					.0333334	.0787
Column	.800000	1.8947			.0400000	.0947
		2.3684				
Entablature Cornice	.0800000	.1895	.0800000	.1895	.113334	.2684
Frieze	.0600000	.1421			.0333334	.0787
Architrave	.0600000	.1421	.0155556	.0368	.0488889	.1158
		.4737				
Column Capital	.0933334	.2211	.288889	.0684	.0622223	.1474
					.0333334	.0789
					.0400000	.0947
Shaft	.666667	1.5789			.0555556	.1316
Base	.0400000	.0947	.0155556	.0368		
		1.8947				
		2.3684				

Composite Arcade Intercolumniation

Height of the Order is 2.3684 meters

Distance From Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening		Height of Impost	
Factor	Meters	Factor	Meters	Factor	Meters	Factor	Meters	Factor	Meters
.480000	1.1368	.400000	9474	.360000	.8526	.720000	1.7052	.540000	1.2789
*.500000	1.1842	.420000	9947						

*Factors for increased width of "alette".

Impost and Archivolt of Arcade

Impost F=.0400000 Fillet	.00222223	.0053	.0133334	.0316	
			.0133334	.0316	
Cavetto	.00444445	.0105	.00888889	.0221	
Fascia[2]	.00888889	.0211	.00833334	.0197	
			.00777778	.0184	
Ovolo	.00666667	.0158	.00111112	.0026	
Reed	.00222223	.0053	.00222223	.0053	
Fillet	.00111112	.0026	.00111112	.0026	
Fascia[1]	.0144445	.0342	.000555556	.0013	
		.0948			
Archivolt F=.0233334 Fillet	.00222223	.0053	.00666667	.0158	
			.00555556	.0132	
Ovolo	.00444445	.0105	.00111112	.0026	
Reed	.00222223	.0053	.00111112	.0026	
Fascia	.0144445	.0342			
		.0553			

Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
	Factor	Meters	Factor	Meters	Factor	Meters
Cornice Fillet	.00333334	.0079	.0800000	.1895	.113334	.2684
Cyma Recta........	.0111112	.0263				
Fillet	.00222223	.0053	.0666667	.1579	.100000	.2368
			.0655556	.1553	.0988889	.2342
Cyma Reversa......	.00444445	.0105	.0611112	.1447	.0944445	.2237
Reed	.00222223	.0053	.0611112	.1447	.0944445	.2237
Corona	.0122223	.0289	.0600000	.1421	.0933334	.2211
			.0555556	.1316	.0888889	.2105
Cyma Recta........	.00444445	.0105	.0366667	.0868	.0700000	.1658
Fillet	.00222223	.0053	.0366667	.0868	.0700000	.1658
			.0355556	.0842	.0688889	.1632
Cyma Reversa......	.00888889	.0211	.0277778	.0658	.0611112	.1447
Dentils	.0155556	.0368	.0266667	.0632	.0600000	.1421
Fillet	.00222223	.0053	.0155556	.0368	.0488889	.1158
			.0144445	.0342	.0477778	.1132
Ovolo	.0111112	.0263	.00333334	.0079	.0366667	.0868
		.1895				
Frieze Reed	.00333334	.0079	.00388889	.0092	.0372223	.0882
Fillet	.00111112	.0026	.00222223	.0053	.0355556	.0842
Frieze	.0555556	.1316			.0333334	.0789
		.1421				
Architrave Fillet	.00222223	.0053	.0155556	.0368	.0488889	.1158
			.0155556	.0368	.0488889	.1158
Cavetto	.00444445	.0105	.0111112	.0263	.0444445	.1053
			.0105556	.0250	.0438889	.1039
Ovolo	.00666667	.0158	.00388889	.0092	.0372223	.0882
Reed	.00222223	.0053	.00500000	.0118	.0388889	.0921
Fascia[2]	.0222223	.0526	.00388889	.0092	.0372223	.0882
			.00333334	.0079	.0366667	.0868
Cyma Reversa......	.00444445	.0105	.00111112	.0026	.0344445	.0816
Fascia[1]	.0177778	.0421			.0333334	.0789
		.1421				
Capital Ovolo	.00333334	.0079	.0288889	.0684	.0622223	.1474
Fillet	.00111112	.0026	.0244445	.0579	.0577778	.1368
Abacus	.00888889	.0211	.0200000	.0474	.0533334	.1263
Channel	.00444445	.0105			.0333334	.0789
			.0111112	.0263	.0444445	.1053
Ovolo	.00888889	.0211	.00222223	.0053	.0355556	.0842
Reed	.00333334	.0079	.00388889	.0092	.0372223	.0882
Fillet	.00111112	.0026	.00222223	.0053	.0355556	.0882
Channel	.00888889	.0211			.0333334	.0789
Drop of Upper Leaves....	.00666667	.0158			.0588889	.1418
Upper Leaves......	.0200000	.0474				
Drop of Lower Leaves....	.00666667	.0158			.0488889	.1158
Lower Leaves......	.0200000	.0474				
		.2212				
Shaft Astragal	.00444445	.0105 }*	.00666667	.0158	.0400000	.0947
Fillet	.00222223	.0053 }	.00388889	.0092	.0372223	.0882
Shaft	.666667	1.5789			.00333334	.0789
Fillet	.00333334	.0079	.00444445	.0105	.0444445	.1053
Upper Diam........	.0666667	.1579 }*			.0333334	.0789
Lower Diam........	.0800000	.1895 }			.0400000	.0947
		1.5789				
Base Upper Torus.......	.00777778	.0184	.00944445	.0224	.0494445	.1171
Fillet	.00111112	.0026	.00555556	.0132	.0455556	.1079
Scotia	.00666667	.0158				
Fillet	.00111112	.0026	.00888889	.0211	.0488889	.1158
Lower Torus.......	.0100000	.0237	.0155556	.0368	.0555556	.1316
Plinth	.0133334	.0316	.0155556	.0368	.0555556	.1316
		.0947				
		2.3685				

Problem Twenty-four

ARCADE INTERCOLUMNIATION WITH THE COMPOSITE ORDER WITHOUT THE PEDESTAL

(English Measurement)

168. The height of this Order is 2.3684 m. × 629.92 = 1491.90 sixteenths. PLATE XXIX

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Order	Entablature ...	.200000	298.38	.0800000	119.35	.113334	169.08
						.0333334	49.73
	Column	.800000	1193.52			.0400000	59.68
			1491.90				
Entablature	Cornice	.0800000	119.35	.0800000	119.35	.113334	169.08
						.0333334	49.73
	Frieze	.0600000	89.51				
	Architrave ...	.0600000	89.51	.0155556	23.21	.0488889	72.93
			298.37				
Column	Capital	.0933334	139.24	.0288889	43.10	.0622223	92.83
						.0333334	49.73
	Shaft	.666667	994.62			.0400000	59.68
	Base	.0400000	59.68	.0155556	23.21	.0555556	82.88
			1193.54				
			1491.91				

Composite Arcade Intercolumniation

Height of the Order is 1491.90 sixteenths

Distance From Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening		Height of Impost	
Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
.480000	716.11	.400000	596.76	.360000	537.08	.720000	1047.17	.540000	805.62
*.500000	745.95	.420000	626.60						

*Factors for increased width of "alette."

Impost and Archivolt of Arcade

Impost F=.0400000

Fillet	.00222223	3.32	.0133334	19.89
			.0133334	19.89
Cavetto	.00444445	6.63	.00888889	13.26
Fascia²	.00888889	13.26	.00833334	12.43
			.00777778	11.60
Ovolo	.00666667	9.95	.00111112	1.66
Reed	.00222223	3.32	.00222223	3.32
Fillet	.00111112	1.66	.00111112	1.66
Fascia¹	.0144445	21.55	.000555556	.83
		59.69		

Archivolt F=.023334

Fillet	.00222223	3.32	.00666667	9.95
			.0055556	8.29
Ovolo	.00444445	6.63	.00111112	1.66
Reed	.00222223	3.32	.00111112	1.66
Fascia	.0144445	21.55		
		35.82		

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Cornice	Fillet	.00333334	4.97	.0800000	119.35	.113334	169.08
	Cyma Recta...	.0111112	16.58				
	Fillet	.00222223	3.32	.0666667	99.46	.100000	149.19
				.0655556	97.80	.0988889	147.53
	Cyma Reversa	.00444445	6.63	.0611112	91.17	.0944445	140.90
	Reed	.00222223	3.32	.0611112	91.17	.0944445	140.90
	Corona	.0122223	18.23	.0600000	89.51	.0933334	139.24
				.0555556	82.88	.0888889	132.61
	Cyma Recta...	.00444445	6.63	.0366667	54.70	.0700000	104.43
	Fillet	.00222223	3.32	.0366667	54.70	.0700000	104.43
				.0355556	53.05	.0688889	102.78
	Cyma Reversa	.00888889	13.26	.0277778	41.44	.0611112	91.17
	Dentils	.0155556	23.21	.0266667	39.78	.0600000	89.51
	Fillet	.00222223	3.32	.0155556	23.21	.0488889	72.93
				.0144445	21.55	.0477778	71.28
	Ovolo	.0111112	16.58	.00333334	4.97	.0366667	54.70
			119.37				
Frieze	Reed	.00333334	4.97	.00388889	5.80	.0372223	55.53
	Fillet	.00111112	1.66	.00222223	3.32	.0355556	53.05
	Frieze	.0555556	82.88			.0333335	49.73
			89.51				
Architrave	Fillet	.00222223	3.32	.0155556	23.21	.0488889	72.93
				.0155556	23.21	.0488889	72.93
	Cavetto	.00444445	6.63	.0111112	16.58	.0444445	66.31
				.0105556	15.75	.0438889	65.48
	Ovolo	.00666667	9.95	.00388889	5.80	.0372223	55.53
	Reed	.00222223	3.32	.00500000	7.46	.0383334	57.19
	Fascia²	.0222223	33.15	.00388889	5.80	.0372223	55.53
				.00333334	4.97	.0366667	57.70
	Cyma Reversa	.00444445	6.63	.00111112	1.66	.0344445	54.39
	Fascia¹	.0177778	26.52			.0333334	49.73
			89.52				
Capital	Ovolo	.00333334	4.97	.0288889	43.10	.0622223	92.83
	Fillet	.00111112	1.66	.0244445	36.47	.0577778	86.20
	Abacus	.00888889	13.26	.0200000	29.84	.0533334	79.57
	Channel	.00444445	6.63			.0333334	49.73
				.0111112	16.58	.0444445	66.31
	Ovolo	.00888889	13.26	.00222223	3.32	.0355556	53.05
	Reed	.00333334	4.97	.00388889	5.80	.0372223	55.53
	Fillet	.00111112	1.66	.00222223	3.32	.0355556	53.05
	Channel	.00888889	13.26			.0333334	49.73
	Drop of Upper Leaves	.00666667	9.95			.0588889	89.52
	Upper Leaves.	.0200000	29.84				
	Drop of Lower Leaves	.00666667	9.95			.0488889	74.52
	Lower Leaves.	.0200000	29.84				
			139.25				
Shaft	Astragal	.00444445	6.63}*	.00666667	9.95	.0400000	59.68
	Fillet	.00222223	3.32}	.00388889	5.80	.0372223	55.53
	Shaft	.666667	994.62			.0333334	49.73
	Fillet	.00333334	4.97}	.00444445	6.63	.0444445	66.31
	Upper Diam...	.0666667	99.46}*			.0333334	49.73
	Lower Diam...	.0800000	119.35}			.0400000	59.68
			994.62				
Base	Upper Torus..	.00777778	11.60	.00944445	14.09	.0494445	73.72
	Fillet	.00111112	1.66	.00555556	8.29	.0455556	67.96
	Scotia	.00666667	9.95				
	Fillet	.00111112	1.66	.00888889	13.26	.0488889	72.93
	Lower Torus..	.0100000	14.92	.0155556	23.31	.0555556	82.88
	Plinth	.0133334	19.89	.0155556	23.21	.0555556	82.88
			59.68				
			1491.95				

ARCADE INTERCOLUMNIATION WITH THE COMPOSITE ORDER WITH THE PEDESTAL   (Metric Measurement)

169.   The height of this Order is 3.000 meters.   **PLATE XXX**

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Meters	Factor	Meters	Factor	Meters
Order	Entablature	.157895	.4737	.0631579	.1895	.0894737	.2684
						.0263158	.0789
	Column	.631579	1.8947			.0315790	.0947
	Pedestal	.210527	.6316	.0140351	.0421	.0578948	.1737
			3.0000				
Entablature	Cornice	.0631579	.1895	.0631579	.1895	.0894737	.2684
	Frieze	.0473685	.1421			.0263158	.0789
	Architrave	.0473685	.1421	.0122808	.0368	.0385965	.1158
			.4737				
Column	Capital	.0736843	.2211	.0201755	.0605	.0464913	.1395
						.0263158	.0789
	Shaft	.526316	1.5789			.0315790	.0947
	Base	.0315790	.0947	.0122808	.0368	.0438597	.1316
			1.8947				
Pedestal	Cap	.0245615	.0737	.0140351	.0421	.0578948	.1737
	Dado	.164913	.4947			.0438597	.1316
	Basement	.0210527	.0632	.0140351	.0421	.0578948	.1737
			.6316				
			3.0000				

Composite Arcade Intercolumniation

Height of the Order is 3.000 meters

Distance From Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening		Height of Impost	
Factor	Meters	Factor	Meters	Factor	Meters	Factor	Meters	Factor	Meters
.505264	1.5158	.442106	1.3263	.378948	1.1368	.789474	2.3684	.600000	1.8000

Impost and Archivolt of Arcade.

	Name				
Impost F=.0315790	Fillet	.00175439	.0053	.0105264	.0316
				.0105264	.0316
	Cavetto	.00350878	.0105	.00701755	.0211
	Fascia	.00614036	.0184	.00657895	.0197
	Fillet	.000877193	.0026	.00614036	.0184
				.00614036	.0184
	Cyma Recta	.00526316	.0158	.000877193	.0026
	Reed	.00175439	.0053	.00175439	.0053
	Fillet	.000877193	.0026	.000877193	.0026
	Frieze	.00877193	.0263		
	Reed	.00175439	.0053	.00263158	.0079
	Fillet	.000877193	.0026	.00175439	.0053
			.0947		
Archivolt F=.0315790	Fillet	.00175439	.0053	.00701755	.0211
				.00657895	.0197
	Cyma Reversa	.00526316	.0158	.00263158	.0079
	Fillet	.00175439	.0053	.00219299	.0066
	Fascia²	.0114036	.0342	.00175439	.0053
	Reed	.00263158	.0079	.00131579	.0039
	Fascia¹	.00877193	.0263		
			.0948		

N. B.—Metric measurements × 629.92 = sixteenths of an inch.

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Meters	Factor	Meters	Factor	Meters
	Fillet	.00263158	.0079	.0631579	.1895	.0894737	.2684
	Cyma Recta	.00877193	.0263				
	Fillet	.00175439	.0053	.0526316	.1579	.0789474	.2368
				.0517744	.1553	.0780702	.2342
	Cyma Reversa	.00350878	.0105	.0482457	.1447	.0745615	.2237
	Reed	.00175439	.0053	.0482457	.1447	.0745615	.2237
	Corona	.00964913	.0289	.0473685	.1421	.0736843	.2211
Cornice				.0438597	.1316	.0701755	.2105
	Cyma Recta	.00350878	.0105	.0289474	.0868	.0552632	.1658
	Fillet	.00175439	.0053	.0289474	.0868	.0552632	.1658
				.0280702	.0842	.0543860	.1632
	Cyma Reversa	.00701755	.0211	.0219299	.0658	.0482457	.1447
	Dentils	.0122808	.0368	.0210527	.0632	.0473685	.1421
	Fillet	.00175439	.0053	.0122808	.0368	.0385965	.1158
				.0114036	.0342	.0377193	.1132
	Ovolo	.00877193	.0263	.00263158	.0079	.0289474	.0868
			.1895				
Frieze	Reed	.00263158	.0079	.00307018	.0092	.0293860	.0882
	Fillet	.000877193	.0026	.00175439	.0053	.0280702	.0842
	Frieze	.0438597	.1316			.0263158	.0789
			.1421				
	Fillet	.00175439	.0053	.0122808	.0368	.0385965	.1158
				.0122808	.0368	.0385965	.1158
	Cavetto	.00350878	.0105	.00877193	.0263	.0350878	.1053
				.00833334	.0250	.0346492	.1039
Architrave	Ovolo	.00526316	.0158	.00307018	.0092	.0293860	.0882
	Reed	.00175439	.0053	.00394737	.0118	.0302632	.0908
	Fascia²	.0175439	.0526	.00307018	.0092	.0293860	.0882
				.00263158	.0079	.0289474	.0868
	Cyma Reversa	.00350878	.0105	.000877193	.0026	.0271930	.0816
	Fascia¹	.0140351	.0421			.0263158	.0789
			.1421				
	Ovolo	.00263158	.0079	.0228071	.0684	.0491229	.1474
	Fillet	.000877193	.0026	.0192983	.0579	.0456141	.1368
	Abacus	.00701755	.0211	.0157895	.0474	.0421053	.1263
	Channel	.00350878	.0105			.0263158	.0789
				.00877193	.0263	.0350878	.1053
	Ovolo	.00701755	.0211	.00175439	.0053	.0280702	.0842
Capital	Reed	.00263158	.0079	.00307018	.0092	.0293860	.0882
	Fillet	.000877193	.0026	.00175439	.0053	.0280702	.0842
	Channel	.00701755	.0211			.0263158	.0789
	Drop of Upper Leaves	.00526316	.0158			.0464913	.1428
	Upper Leaves	.0157895	.0474				
	Drop of Lower Leaves	.00526316	.0158			.0385965	.1135
	Lower Leaves	.0157895	.0474				
			.2212				
	Astragal	.00350878	.0105 }*	.00526316	.0158	.0315790	.0947
	Fillet	.00175439	.0053 }	.00307018	.0092	.0293860	.0882
						.0263158	.0789
Shaft	Shaft	.526316	1.5789			.0315790	.0947
	Fillet	.00263158	.0079 }	.00350878	.0105	.0350878	.1053
	Upper Diam.	.0526316	.1579 }*			.0263158	.0789
	Lower Diam.	.0631579	.1895 }			.0315790	.0947
			1.5789				
	Upper Torus	.00614036	.0184	.00745615	.0224	.0390351	.1171
	Fillet	.000877193	.0026	.00438597	.0132	.0359650	.1079
	Scotia	.00526316	.0158				
Base	Fillet	.000877193	.0026	.00701755	.0211	.0385965	.1158
	Lower Torus	.00789474	.0237	.0122808	.0368	.0438597	.1316
	Plinth	.0105264	.0316	.0122808	.0368	.0438597	.1316
			.0947				
	Fillet	.00116843	.0035	.0140351	.0421	.0578948	.1737
				.0135965	.0408	.0574562	.1724
	Cyma Reversa	.00233860	.0070	.0109650	.0329	.0548246	.1645
	Corona	.00526316	.0158	.0105264	.0316	.0543860	.1632
Cap				.00789474	.0237	.0517744	.1553
	Cyma Recta	.00263158	.0079	.00394737	.0118	.0478071	.1434
	Fillet	.000877193	.0026	.00394737	.0118	.0478071	.1434
				.00394737	.0118	.0478071	.1434
	Cavetto	.00350878	.0105	.000438597	.0013	.0442983	.1329
	Frieze	.00877193	.0263			.0438597	.1316
			.0736				
Dado	Reed	.00175439	.0053	.00350878	.0105	.0473685	.1421
	Fillet	.00175439	.0053	.00263158	.0079	.0464913	.1395
	Dado	.159650	.4790			.0438597	.1316
	Fillet	.00175439	.0053	.00263158	.0079	.0464913	.1395
			.4949				
Basement	Reed	.00175439	.0053	.00394737	.0118	.0478071	.1434
				.00438597	.0132	.0482457	.1447
	Cyma Recta	.00526316	.0158	.0105264	.0316	.0543860	.1632
	Fillet	.00175439	.0053	.0114036	.0342	.0552632	.1658
	Torus	.00526316	.0158	.0140351	.0421	.0578948	.1737
	Plinth	.00701755	.0211	.0140351	.0421	.0578948	.1737
			.0633				
			3.0003				

Problem Twenty-Five

ARCADE INTERCOLUMNIATION WITH THE COMPOSITE ORDER WITH THE PEDESTAL

(English Measurement)

170. The height of this Order is 3.000 m. $\times$ 629.92 = 1889.76 sixteenths. **PLATE XXX**

	Name of Member	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Order	Entablature ...	.157895	298.38	.0631579	119.35	.0894737	169.08
						.0263158	49.73
						.0315790	59.68
	Column	.631579	1193.53				
	Pedestal	.210527	397.85	.0140351	26.52	.0578948	109.41
			1889.76				
Entablature	Cornice	.0631579	119.35	.0631579	119.35	.0894737	169.08
	Frieze	.0473685	89.51			.0263158	49.73
	Architrave ...	.0473685	89.51	.0122808	23.21	.0385965	72.94
			298.37				
Column	Capital	.0736843	139.25	.0201755	38.13	.0464913	87.86
						.0263158	49.73
						.0315790	59.68
	Shaft	.526316	994.61				
	Base	.0315790	59.68	.0122808	23.21	.0438597	82.87
			1193.54				
Pedestal	Cap	.0245615	46.42	.0140351	26.52	.0578948	109.41
	Dado	.164913	311.65			.0438597	82.87
	Basement	.0210527	39.75	.0140351	26.52	.0578948	109.41
			397.85				
			1889.76				

Composite Arcade Intercolumniation

Height of the Order is 1889.76 sixteenths

Distance From Axis to Axis		Distance Between Columns		Width of Opening		Height of Opening		Height of Impost	
Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
.505264	954.83	.442106	835.47	.378948	716.12	.789474	1491.92	.600000	1133.86

Impost and Archivolt of Arcade

	Name	Factor	Six-teenths	Factor	Six-teenths
Impost F=.0315790	Fillet	.00175439	3.32	.0105264	19.89
				.0105264	19.89
	Cavetto	.00350878	6.63	.00701755	13.26
	Fascia	.00614036	11.60	.00657895	12.43
	Fillet	.000877193	1.66	.00614036	11.60
				.00614036	11.60
	Cyma Recta...	.00526316	9.95	.000877193	1.66
	Reed	.00175439	3.32	.00175439	3.32
	Fillet	.000877193	1.66	.000877193	1.66
	Frieze	.00877193	16.58		
	Reed	.00175439	3.32	.00263158	4.97
	Fillet	.000877193	1.66	.00175439	3.32
			59.75		
Archivolt F=.0315790	Fillet	.00175439	3.32	.00701755	13.26
				.00657895	12.43
	Cyma Reversa.	.00526316	9.95	.00263158	4.97
	Fillet	.00175439	3.32	.00219299	4.14
	Fascia²	.0114036	21.55	.00175439	3.32
	Reed	.00263158	4.97	.00131579	2.49
	Fascia¹	.00877193	16.58		
			59.69		

N. B.—English measurements $\times$.0015875=meters.

	Name of Moulding	Height		Projection From Face of Column		Projection From Axis of Column	
		Factor	Six-teenths	Factor	Six-teenths	Factor	Six-teenths
Cornice	Fillet	.00263158	4.97	.0631579	119.35	.0894737	169.08
	Cyma Recta.....	.00877197	16.58				
	Fillet	.00175439	3.32	.0526316	99.46	.0789474	149.19
				.0517744	97.84	.0780702	147.53
	Cyma Reversa...	.00350878	6.63	.0482457	91.17	.0745615	140.90
	Reed	.00175439	3.32	.0482457	91.17	.0745615	140.90
	Corona	.00964913	18.23	.0473685	89.51	.0736845	139.25
				.0438597	82.87	.0701755	132.61
	Cyma Recta.....	.00350878	6.63	.0289474	54.71	.0552632	104.43
	Fillet	.00175439	3.32	.0289474	54.71	.0552632	104.43
				.0280702	53.05	.0543860	102.78
	Cyma Reversa...	.00701755	13.26	.0219299	41.44	.0482457	91.17
	Dentils	.0122808	23.21	.0210527	39.78	.0473685	89.51
	Fillet	.00175439	3.32	.0122808	23.21	.0385965	72.94
				.0114036	21.55	.0377193	71.28
	Ovolo	.00877193	16.58	.00263158	4.97	.0289474	54.71
			119.37				
Frieze	Reed	.00263158	4.97	.00307018	5.80	.0293860	55.53
	Fillet	.000877193	1.66	.00175439	3.32	.0280702	53.05
	Frieze	.0438597	82.87			.0263158	49.73
			89.50				
Architrave	Fillet	.00175439	3.32	.0122808	23.21	.0385965	72.94
				.0122808	23.21	.0385965	72.94
	Cavetto	.00350878	6.63	.00877193	16.58	.0350878	66.31
				.00833334	15.75	.0346492	65.48
	Ovolo	.00526316	9.95	.00307018	5.80	.0293060	55.53
	Reed	.00175439	3.32	.00394737	7.45	.0302632	57.19
	Fascia²	.0175439	33.15	.00307018	5.80	.0293860	55.53
				.00263158	4.97	.0289474	54.71
	Cyma Reversa...	.00350878	6.63	.000877193	1.66	.0271930	51.39
	Fascia¹	.0140351	26.52			.0263158	49.73
			89.52				
Capital	Ovolo	.00263158	4.97	.0228071	43.10	.0491229	92.83
	Fillet	.000877193	1.66	.0192983	36.47	.0456141	86.20
	Abacus	.00701755	13.26	.0157895	29.84	.0421053	79.57
	Channel	.00350878	6.63			.0263158	49.73
				.00877193	16.58	.0350878	66.31
	Ovolo	.00701755	13.26	.00175439	3.32	.0280702	53.05
	Reed	.00263158	4.97	.00307018	5.80	.0293860	55.53
	Fillet	.000877193	1.66	.00175439	3.32	.0280702	53.05
	Channel	.00701755	13.26			.0263158	49.73
	Drop of Upper Leaves.	.00526316	9.95			.0464913	89.53
	Upper Leaves...	.0157895	29.84				
	Drop of Lower Leaves.	.00526316	9.95			.0385965	64.58
	Lower Leaves...	.0157895	29.84			.0385965	64.58
			139.25				
Shaft	Astragal	.00350878	6.63)*	.00526316	9.95	.0315790	59.68
	Fillet	.00175439	3.32(	.00307018	5.80	.0293860	55.53
						.0263158	49.73
	Shaft	.526316	994.61			.0315790	59.68
	Fillet	.00263158	4.97	.00350878	6.63	.0350878	66.31
	Upper Diam....	.0526316	99.46			.0263158	49.73
	Lower Diam....	.0631579	119.35			.0315790	59.68
			994.61				
Base	Upper Torus...	.00614036	11.60	.00745615	14.09	.0390351	73.77
	Fillet	.000877193	1.66	.00438597	8.29	.0359650	67.97
	Scotia	.00526316	9.95				
	Fillet	.000877193	1.66	.00701755	13.76	.0385965	72.94
	Lower Torus....	.00789474	14.92	.0122808	23.21	.0438597	82.87
	Plinth	.0105264	19.89	.0122808	23.21	.0438597	82.87
			59.68				
Cap	Fillet	.00116843	2.21	.0140351	26.52	.0578948	109.41
				.0135965	25.69	.0574562	108.50
	Cyma Reversa...	.00233860	4.42	.0109650	20.72	.0548246	103.61
	Corona	.00526316	9.95	.0105264	19.89	.0543860	102.78
				.00789474	14.92	.0517744	97.84
	Cyma Recta.....	.00263158	4.97	.00394737	7.45	.0478071	90.34
	Fillet	.000877193	1.66	.00394737	7.45	.0478071	90.34
				.00394737	7.45	.0478071	90.34
	Cavetto	.00350878	6.63	.000438597	0.83	.0442983	83.71
	Frieze	.00877193	16.58			.0438597	82.87
			46.42				
Dado	Reed	.00175439	3.32	.00350878	6.63	.0473685	89.51
	Fillet	.00175439	3.32	.0263158	4.97	.0464913	87.86
	Dado	.159650	301.70			.0438597	82.87
	Fillet	.00175439	3.32	.00263158	4.97	.0464913	87.86
			311.66				
Basement	Reed	.00175439	3.32	.00394737	7.45	.0478071	90.34
				.00438597	8.29	.0482457	91.17
	Cyma Recta.....	.00526316	9.95	.0105264	19.89	.0543860	102.78
	Fillet	.00175439	3.32	.0114036	21.55	.0552632	104.43
	Torus	.00526316	9.95	.0140351	26.52	.0578948	109.41
	Plinth	.00701755	13.26	.0140351	26.52	.0578948	109.41
			89.80				
			1889.81				

Construction and Ornament of Mouldings

PLATE I
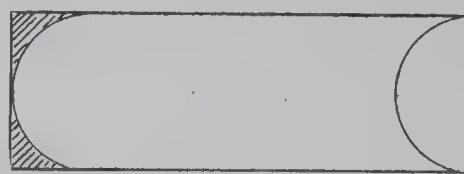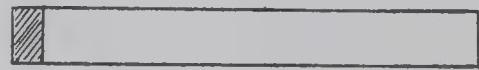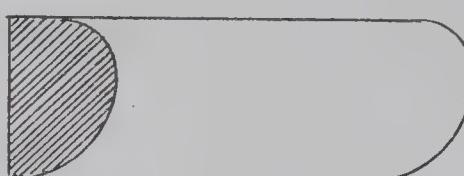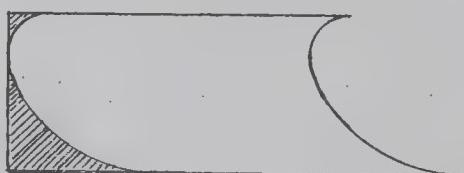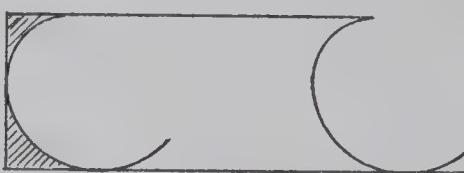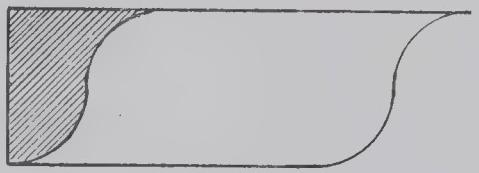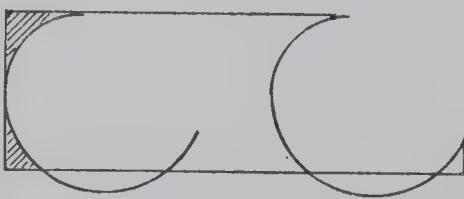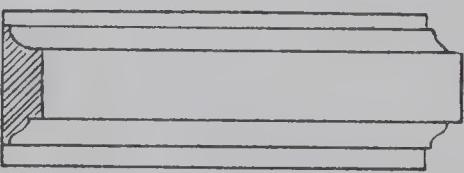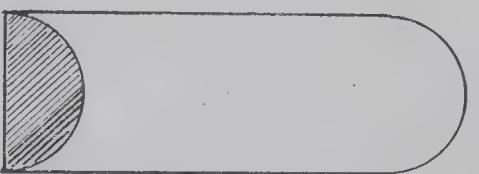
Fillet or Listel	Scotia
Reed or Bead	
Ovolo	Beak Mould
Guscio or Cavetto	Scotia
Cyma Recta	Scotia
Cyma Recta	Scotia of Vignola
Cyma Reversa	Fascia
Torus	Astragal

Scale 10 Centimeters =1 Meter.
Scale 1/16 inch =10/16 inch.

PLATE I (B)

Cyma Recta and Fillet
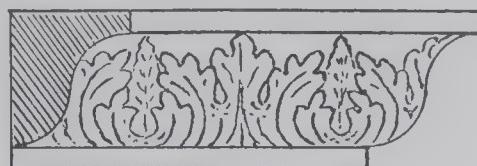
Cyma Reversa and Fillet
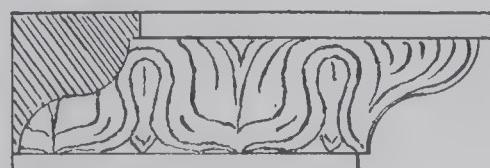
Ovolo and Fillet

Scotia and Fillet
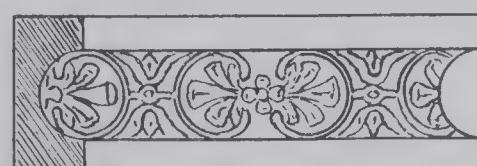
Cavetto and Fillet
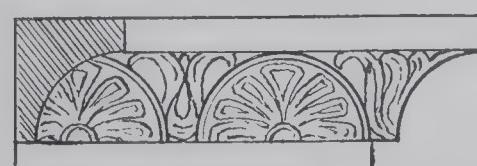
Fascia
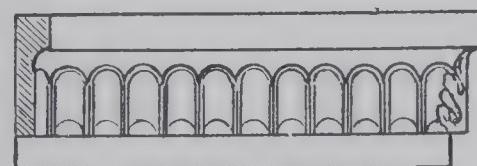
Dentils
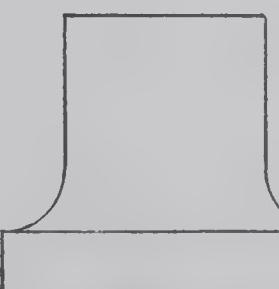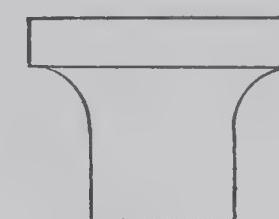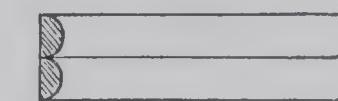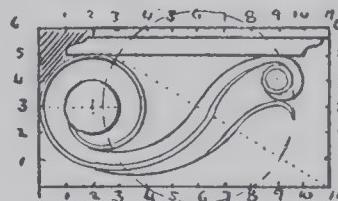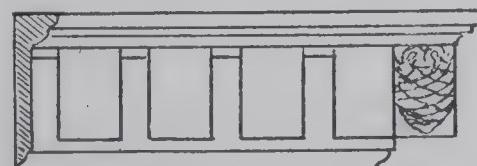
Modillion

Reeds or Bastoncini

Sommoscapo

Imoscapo

Zoccolo or Sub Base

The Five Orders of Architecture of Vignola

The Problem on the Article 121

PLATE II

| TUSCAN | DORIC | IONIC | CORINTHIAN | COMPOSITE |
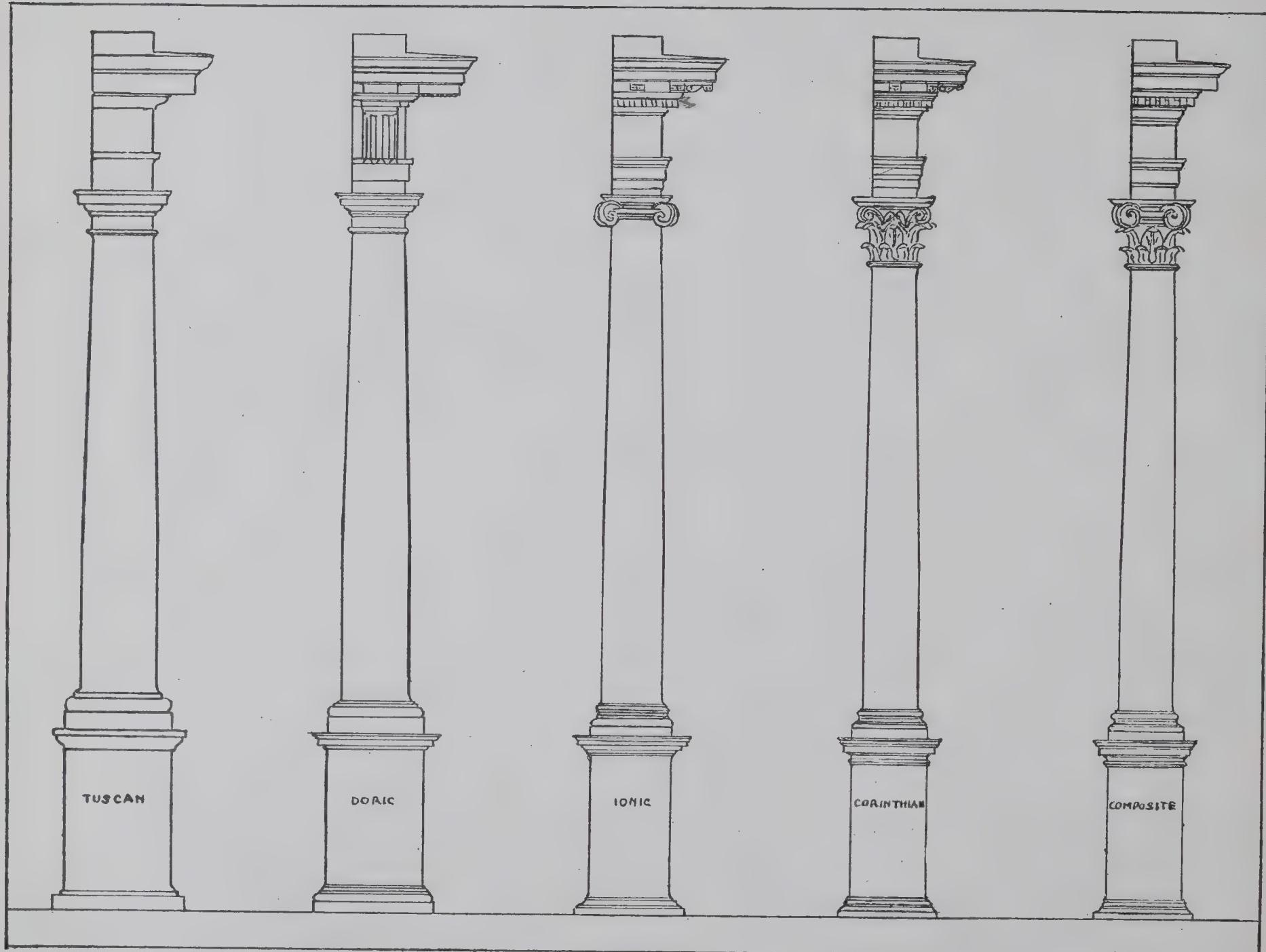
Height of Orders =3.00 Meters.　　　　　　　Scale =5 Centimeters =1 Meter.
Height of Orders =1889.76 Sixteenths.　　　　Scale =1/16 inch =20/16 inch.

Entasis of the Shaft

  PLATE III
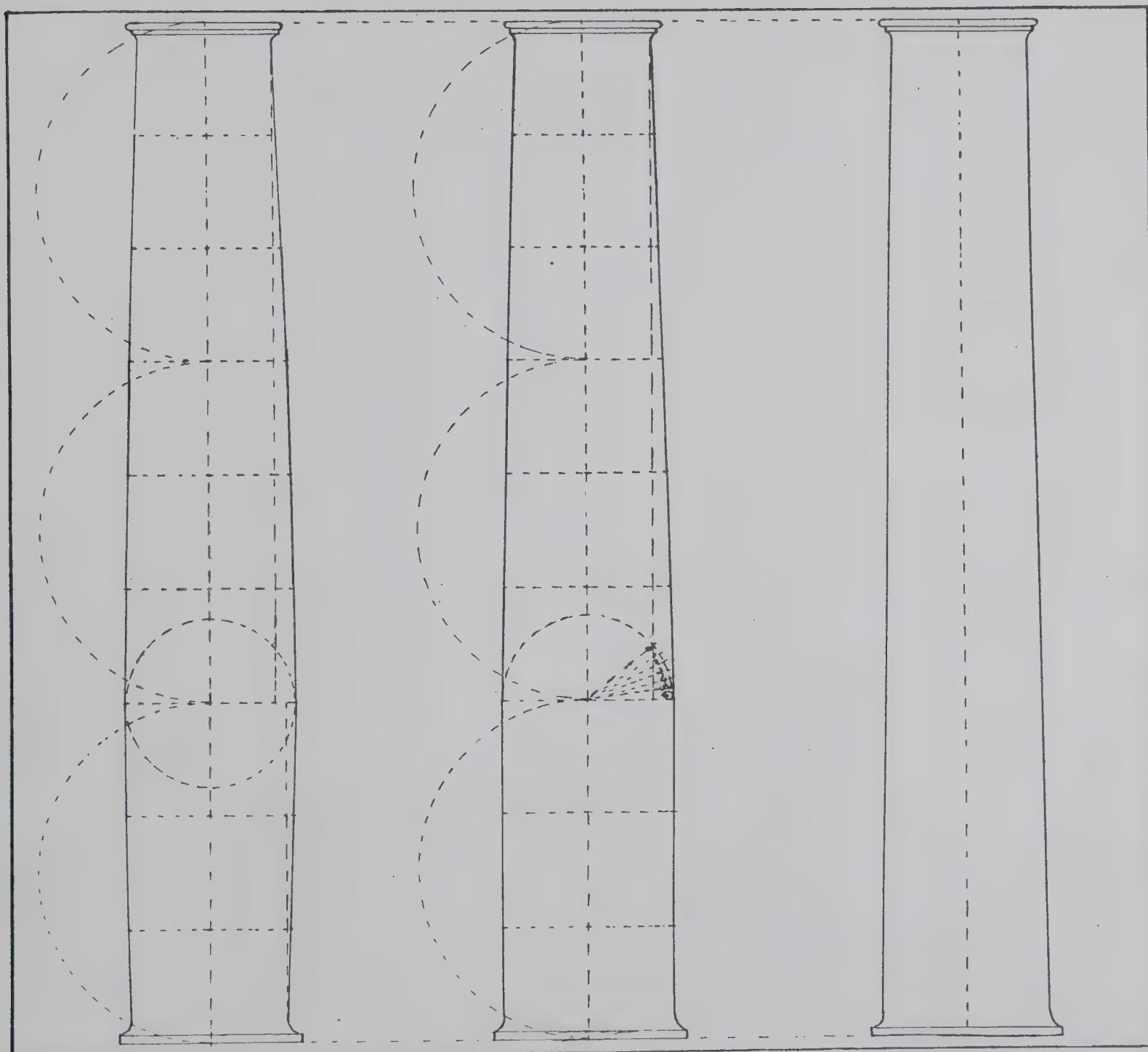
Height of Order =6.00 Meters.
Height of Order =3779.52 Sixteenths.

Scale =5 Centimeters =1 Meter.
Scale =1/16 inch =20/16 inch.

The Tuscan Order with the Pedestal
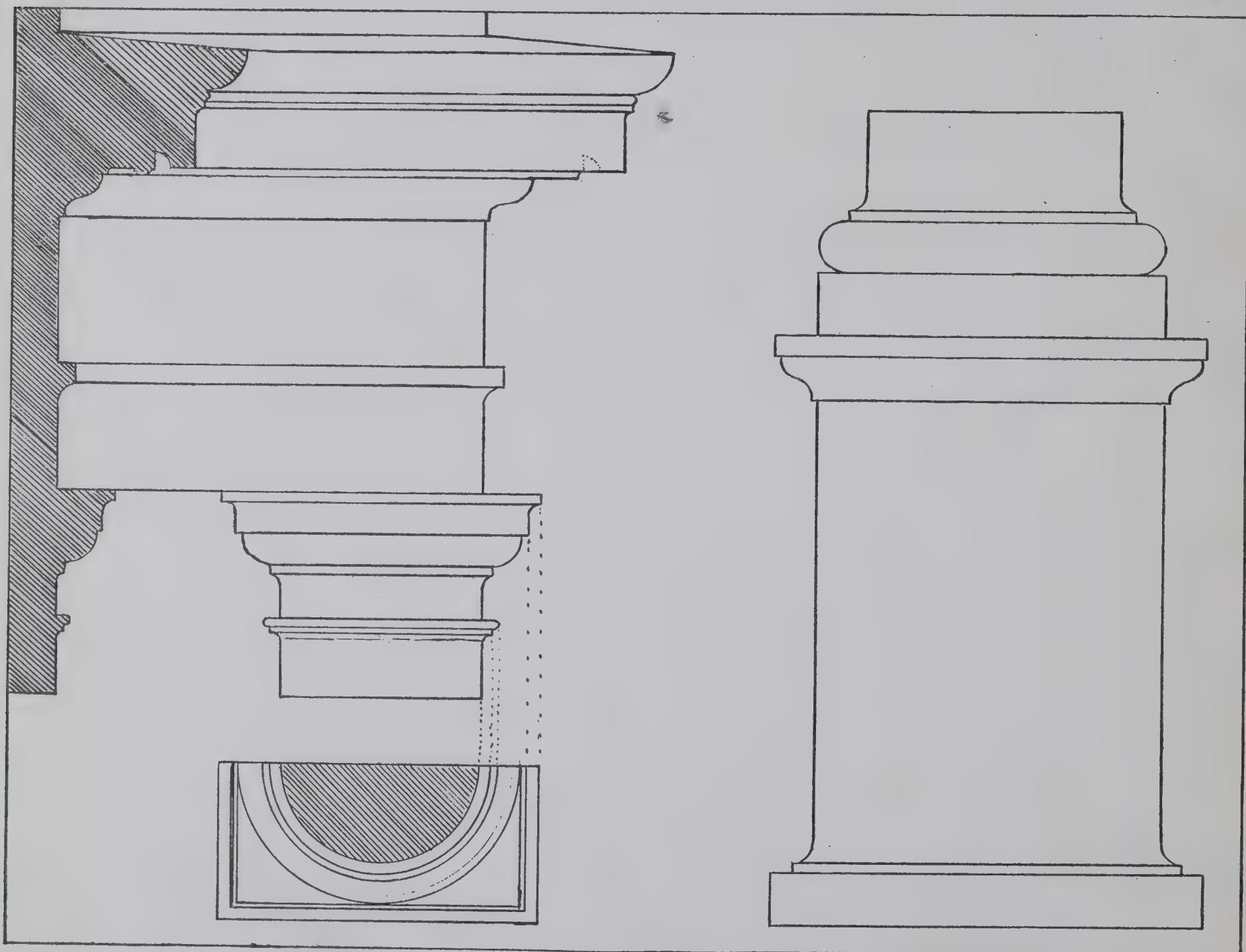
PLATE IV

Height of Order 5.00 Meters.
Height of Order 3149.60 Sixteenths.

Scale =10 Centimeters =1 Meter.
Scale =1/16 inch =10/16 inch.

Simple Intercolumniation with the Tuscan Order

PLATE V

DISTANCE BETWEEN COLUMNS

DISTANCE FROM AXIS TO AXIS

Height of Order =3.00 Meters.
Height of Order =1889.76 Sixteenths.

Scale =5 Centimeters =1 Meter.
Scale =1/16 inch =20/16 inch.

Practical Construction of the Pediment

PLATE VIII
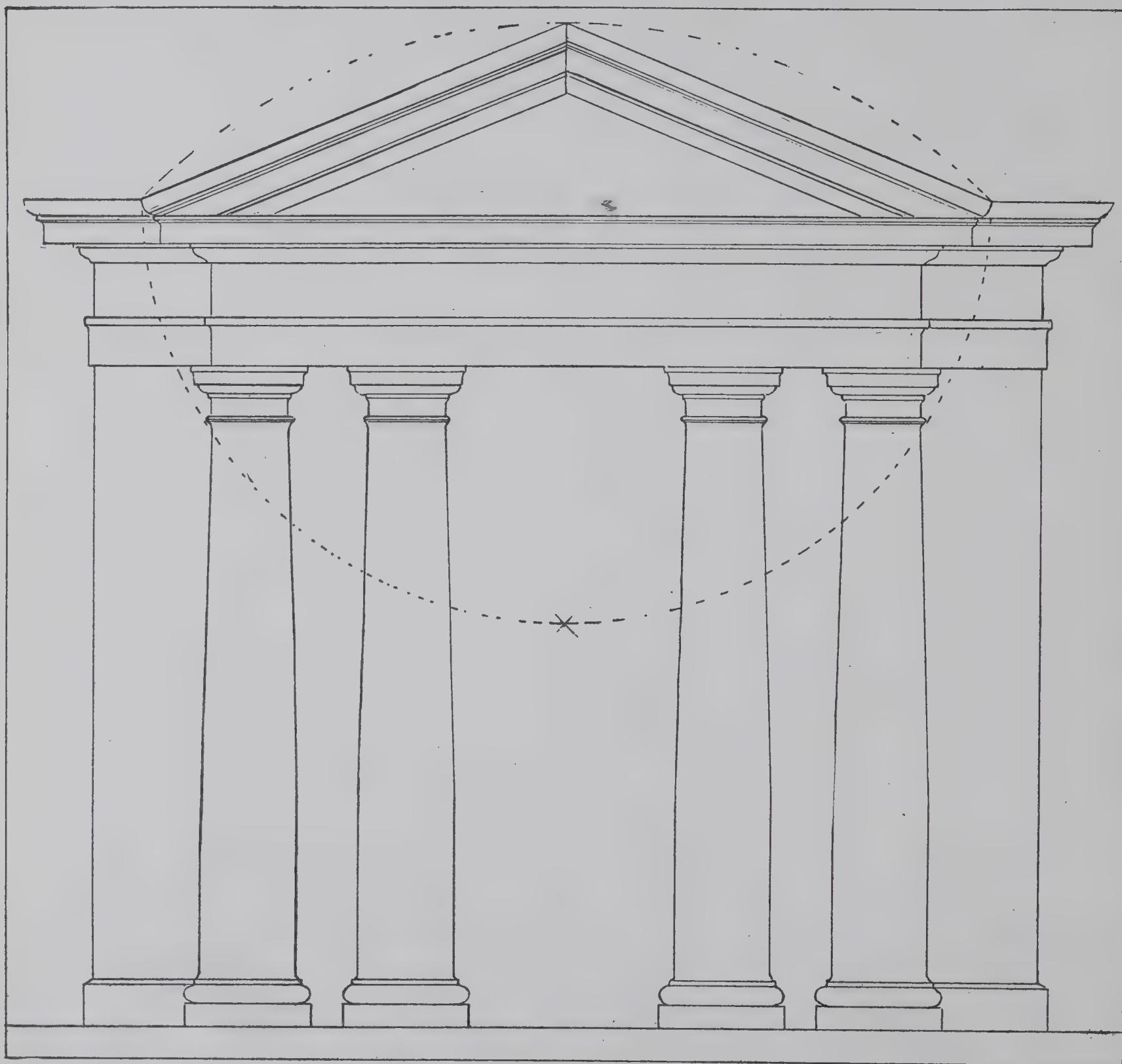
Height of Order =3.00 Meters.
Height of Order =1889.76 Sixteenths.

For the Tuscan Order

Problem 3   PLATE VIII (B)

Arcade Intercolumniation with the Tuscan Order
without the Pedestal

Problem 4   PLATE VI
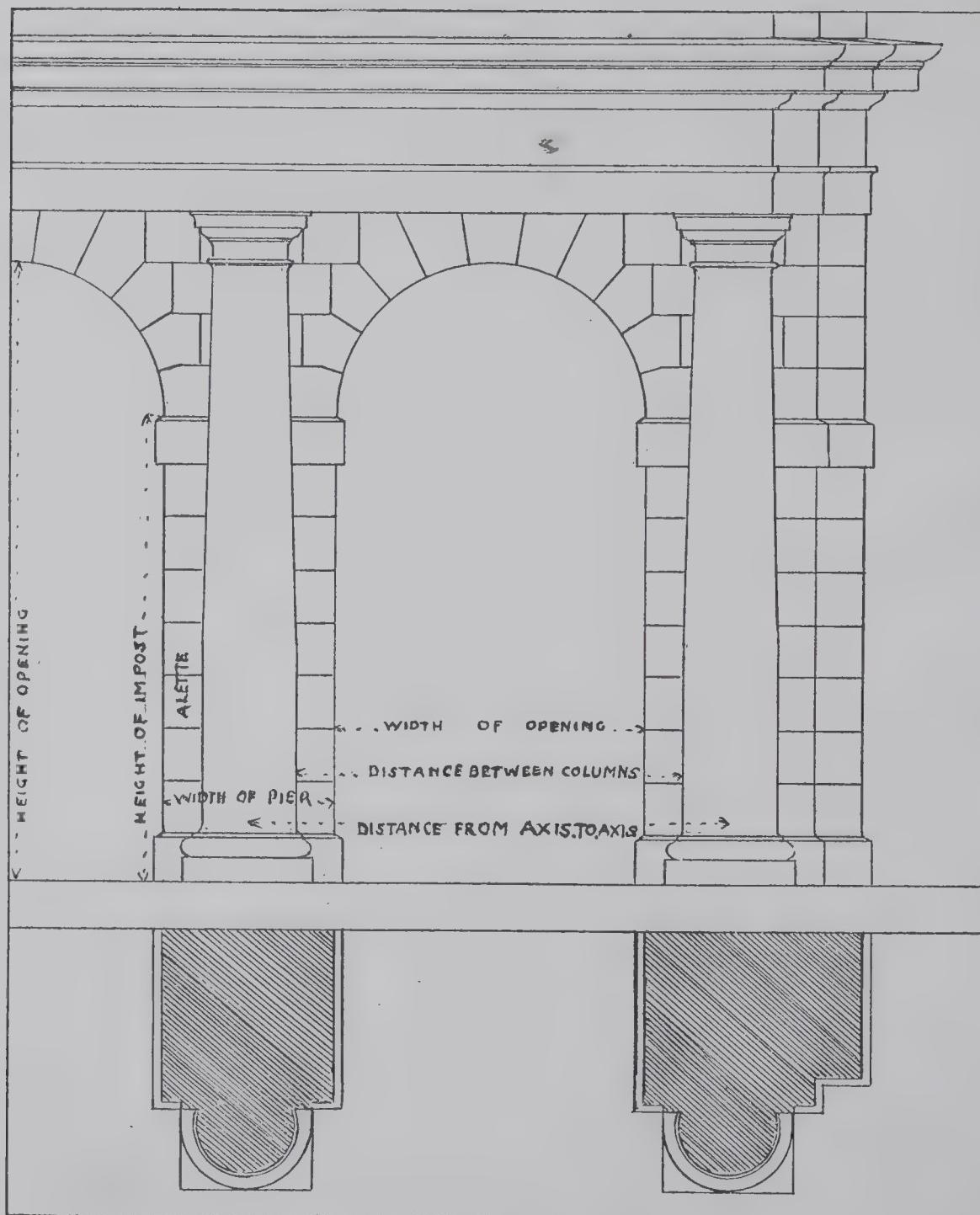
Height of Order =2.3684 Meters.   Scale =5 Centimeters =1 Meter.
Height of Order =1491.30 Sixteenths.   Scale =1/16 inch =20/16 inch.

Arcade Intercolumniation with the Tuscan Order
with the Pedestal

Problem 5   PLATE VII

Height of Order =3.00 Meters.   Scale =5 Centimeters =1 Meter.
Height of Order =1889.76 Sixteenths   Scale =1/16 inch =20/16 inch.

The Doric Order with the Pedestal and Mutules

Problem 6   PLATE IX
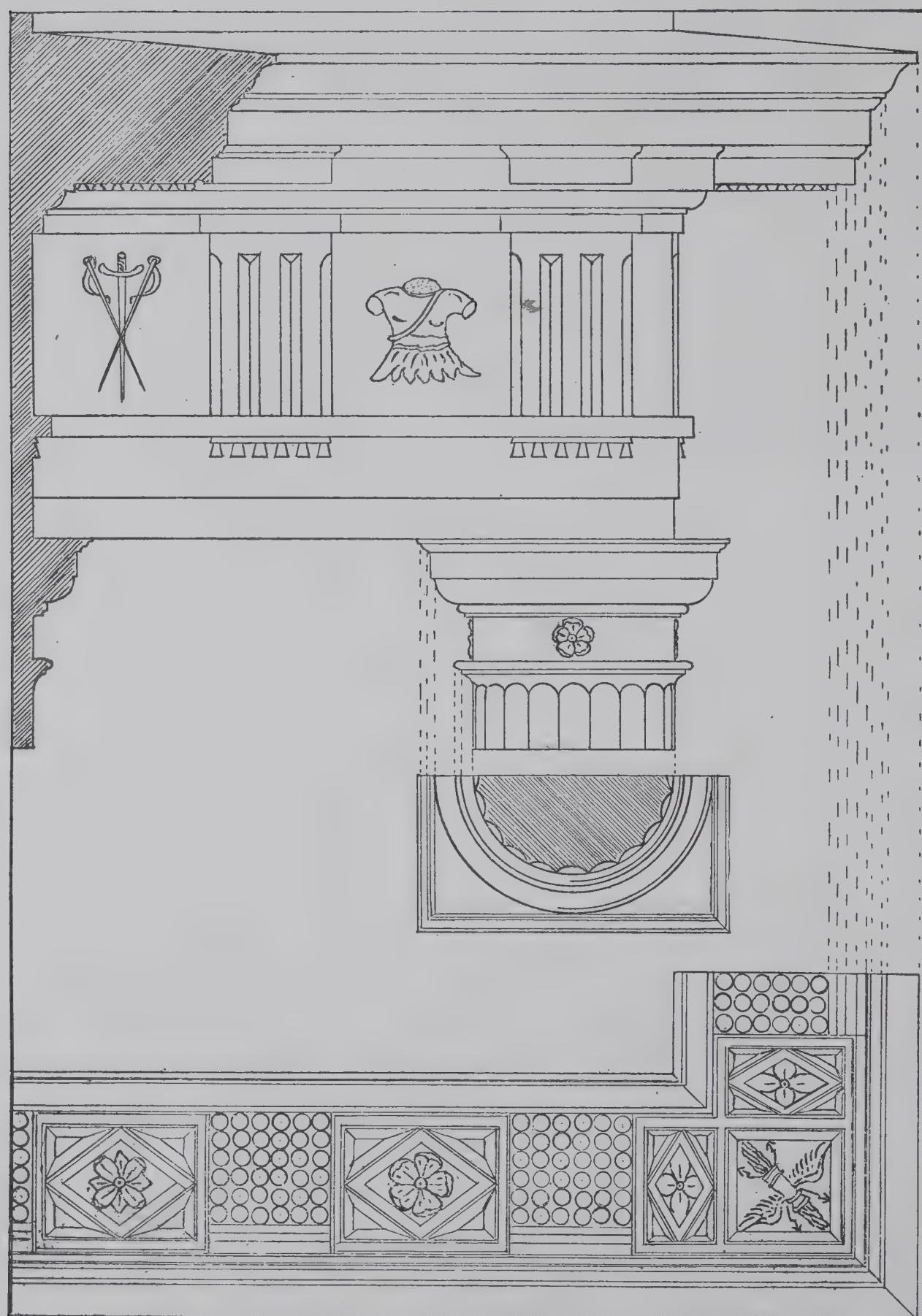
Height of Order =5.00 Meters.   Scale =10 Centimeters =1 Meter.
Height of Order =3149.60 Sixteenths.   Scale =1/16 inch =10/16 inch.

The Doric Order with the Pedestal and Dentils

Problem 6 (B)   PLATE IX (B)
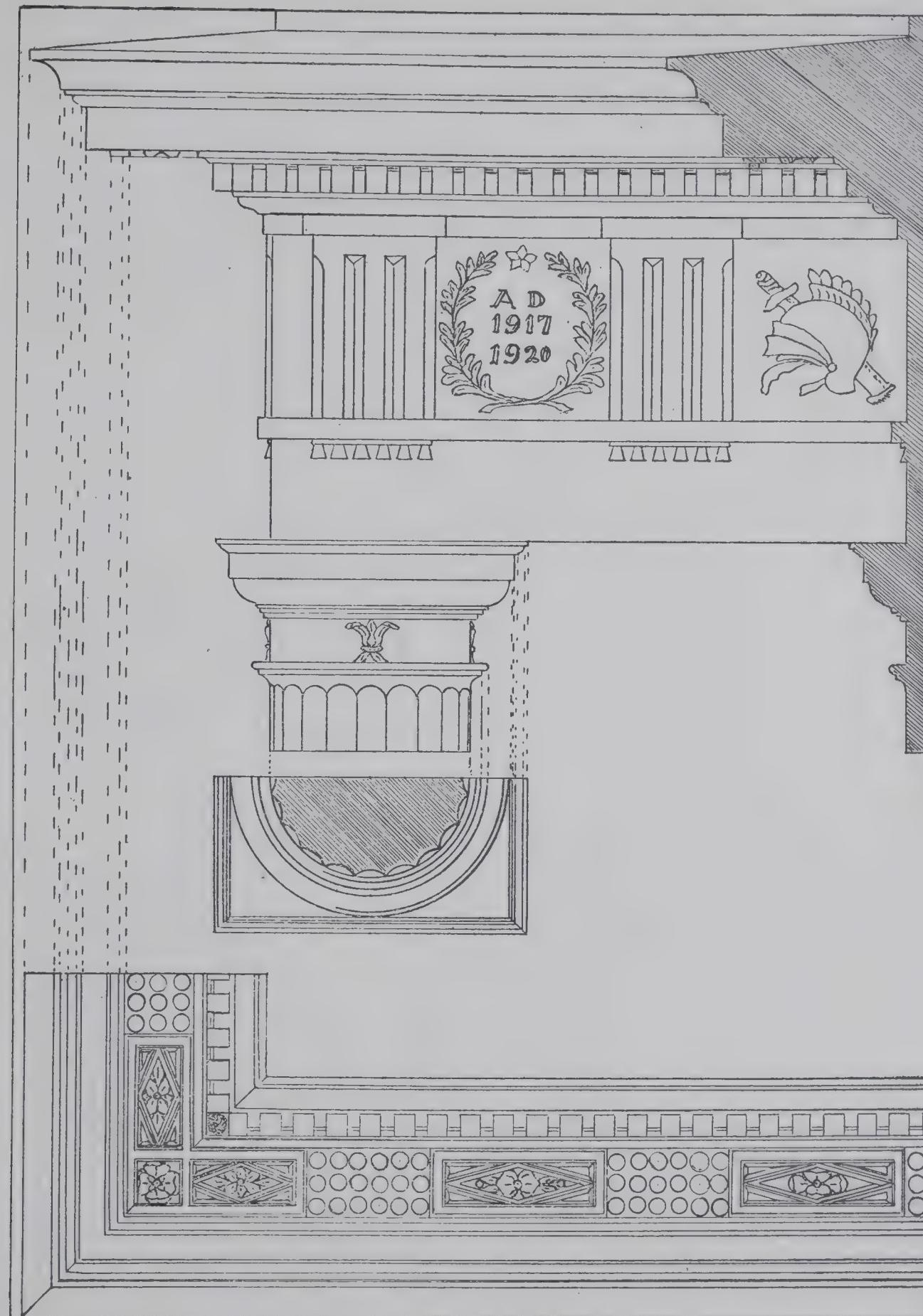
Height of Order =5.00 Meters.   Scale =10 Centimeters =1 Meter.
Height of Order =3149.60 Sixteenths.   Scale =1/16 inch =10/16 inch.

Capital and Pedestal of the Doric Order

PLATE X
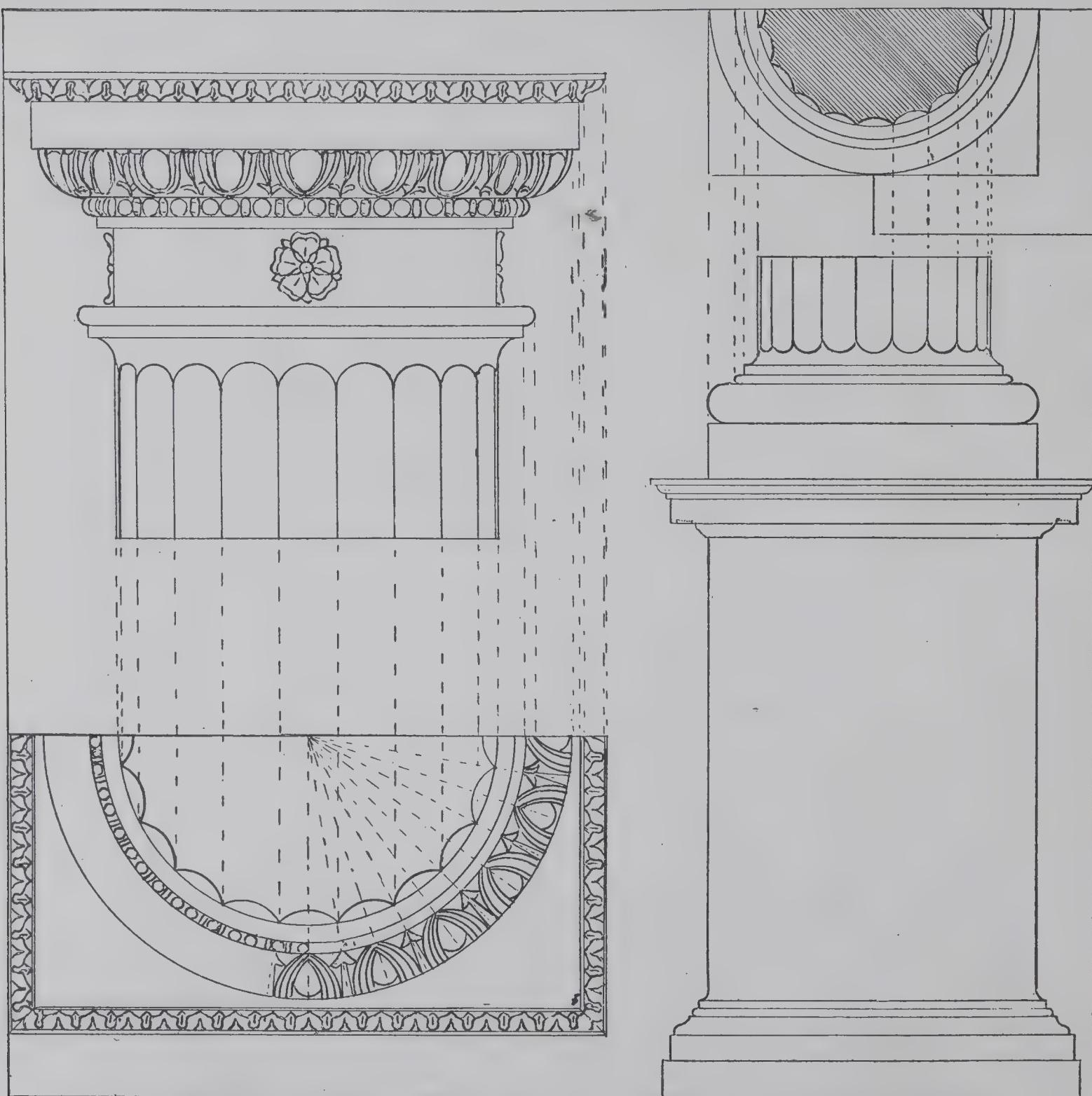
Height of Order =5.00 Meters =3149.60 Sixteenths

Scale of Capital =20 Centimeters =1 Meter.   Scale of Pedestal =10 Centimeters =1 Meter.
Scale of Capital =1/16 inch =5/16 inch.   Scale of Pedestal =1/16 inch =10/16 inch.

Simple Intercolumniation with the Doric Order

Problem 7   **PLATE XI**

Height of Order =3.00 Meters.   Scale =5 Centimeters =1 Meter.
Height of Order =1889.76 Sixteenths.   Scale =1/16 inch =20/16 inch.

Arcade Intercolumniation with the Doric Order without the Pedestal (with Dentils)

Problem 8   PLATE XII

WIDTH OF OPENING
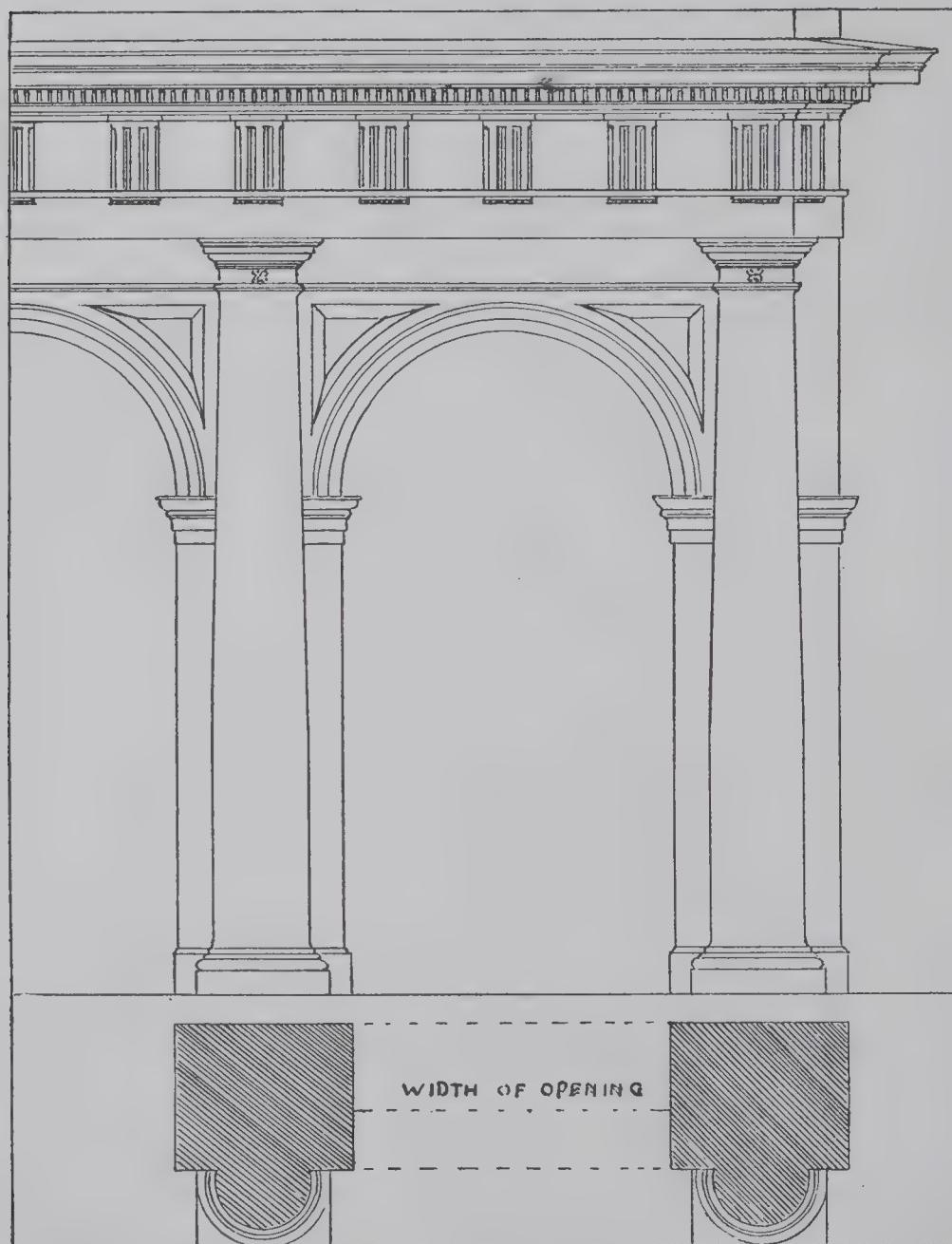
Height of Order =2.3684 Meters.   Scale =5 Centimeters =1 Meter.
Height of Order =1491.91 Sixteenths.   Scale =1/16 inch =20/16 inch.

Arcade Intercolumniation with the Doric Order with the Pedestal (with Mutules)

Problem 9 PLATE XIII

Height of Order =3.00 Meters.
Height of Order =1889.76 Sixteenths.

Scale =5.00 Centimeters =1 Meter.
Scale =1/16 inch =20/16 inch.

The Ionic Order with the Pedestal (Antique)

PLATE XIV

Height of Order =5.00 Meters.
Height of Order =3149.60 Sixteenths.

Scale =10 Centimeters =1 Meter.
Scale =1/16 inch =10/16 inch.

The Modern Ionic Order with the Pedestal (and Modillions)

Problem 11   PLATE XV
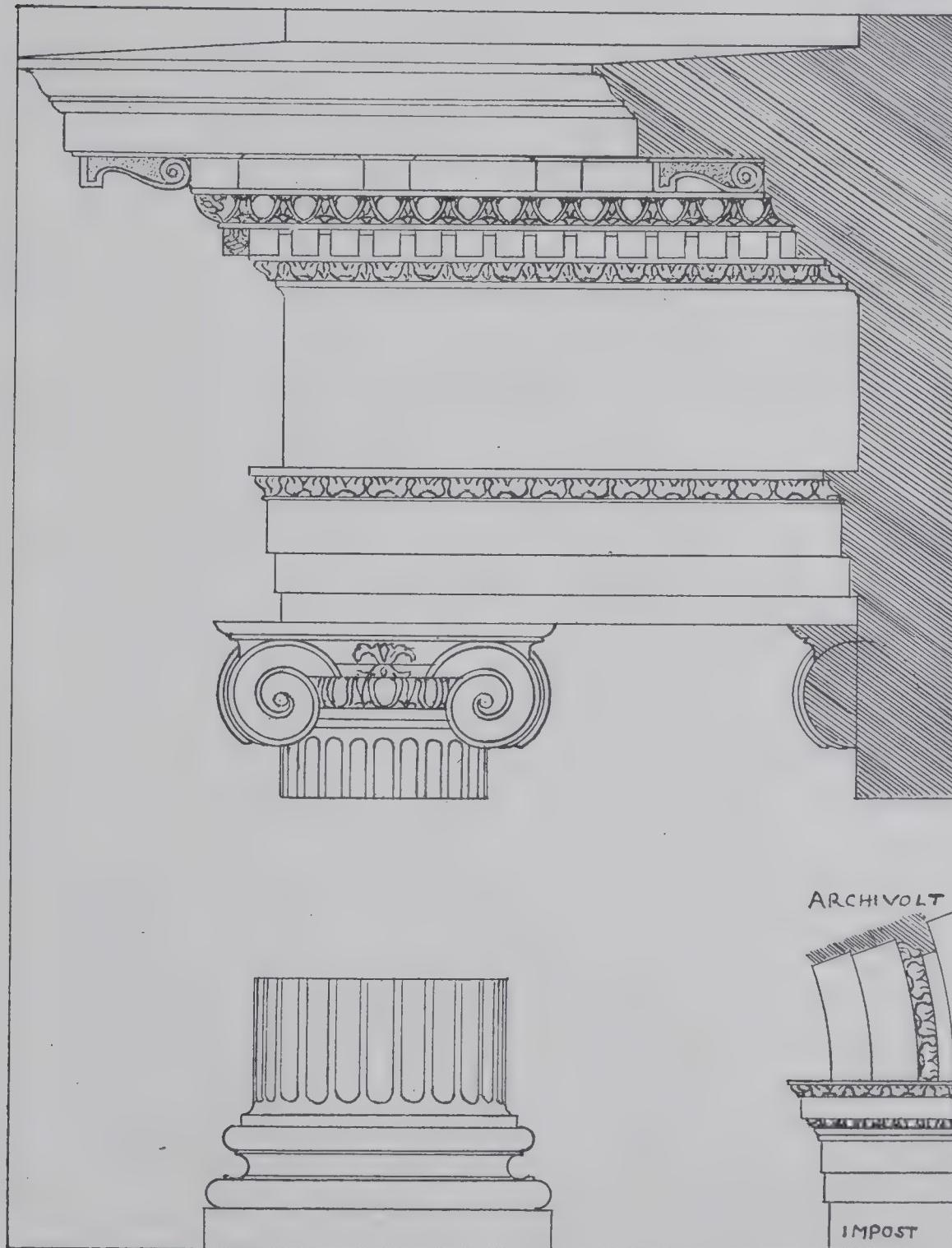
ARCHIVOLT

IMPOST

Height of Order =5.00 Meters.   Scale =10 Centimeters =1 Meter.
Height of Order =3149.60 Sixteenths.   .   Scale =1/16 inch =10/16 inch.

Antique and Modern Capitals for the Ionic Order

                                                              PLATE XVI

EYE OF THE VOLUTE. QUOTA 2.

Height of Order =5.00 Meters (including Pedestal)   Scale =20 Centimeters =1 Meter.
Height of Order =3149.60 Sixteenths.   Scale =1/16 inch =5/16 inch.

Simple or "Architravato" Ionic Intercolumniation

Problem 13   **PLATE XVII**

Height of Order =3.00 Meters.   Scale =5 Centimeters =1 Meter.
Height of Order =1889.76 Sixteenths.   Scale =1/16 inch =20/16 inch.

Arcade Intercolumniation with the Ionic Order without the Pedestal (Antique)

Problem 14   PLATE XVIII

VASE

BALLUSTER

FASCIA

CAPITAL....

NECK .....

BODY

BASE

ZOCCOLO

Height of Order =2.3684 Meters.   Scale =5 Centimeters =1 Meter.
Height of Order =1491.90 Sixteenths.   Scale =1/16 inch =20/16 inch.

Scale of Details: 10 centimeters =1 meter, 1/16 inch =10/16 inch.

Arcade Intercolumniation with the Ionic Order with the Pedestal (Modern)

Problem 15   PLATE XVIV
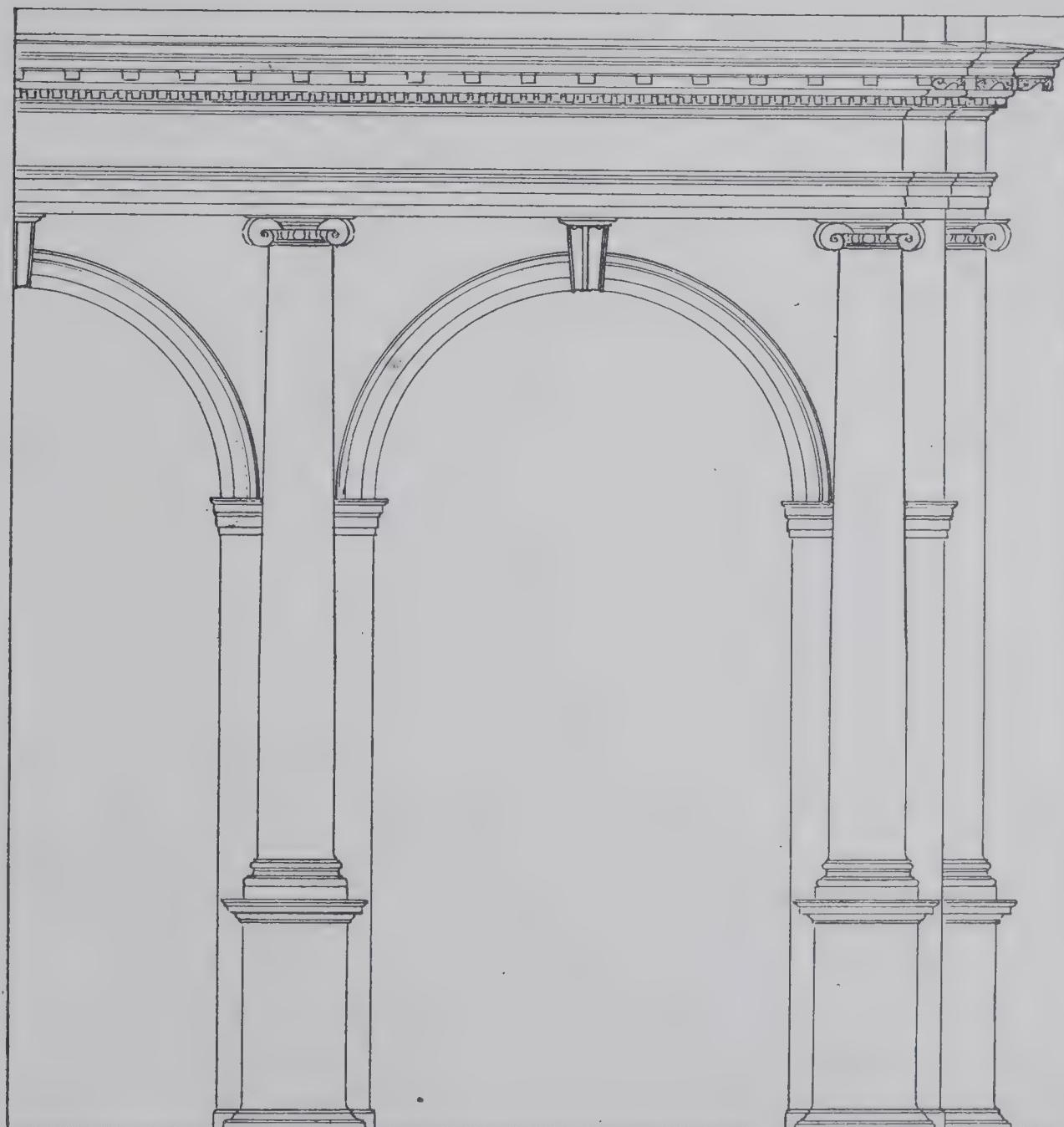
Height of Order =3.00 Meters.   Scale =5 Centimeters =1 Meter.
Height of Order =1889.76 Sixteenths.   Scale =1/16 inch =20/16 inch.

Capital of the Corinthian Order

Problem 16

PLATE XX
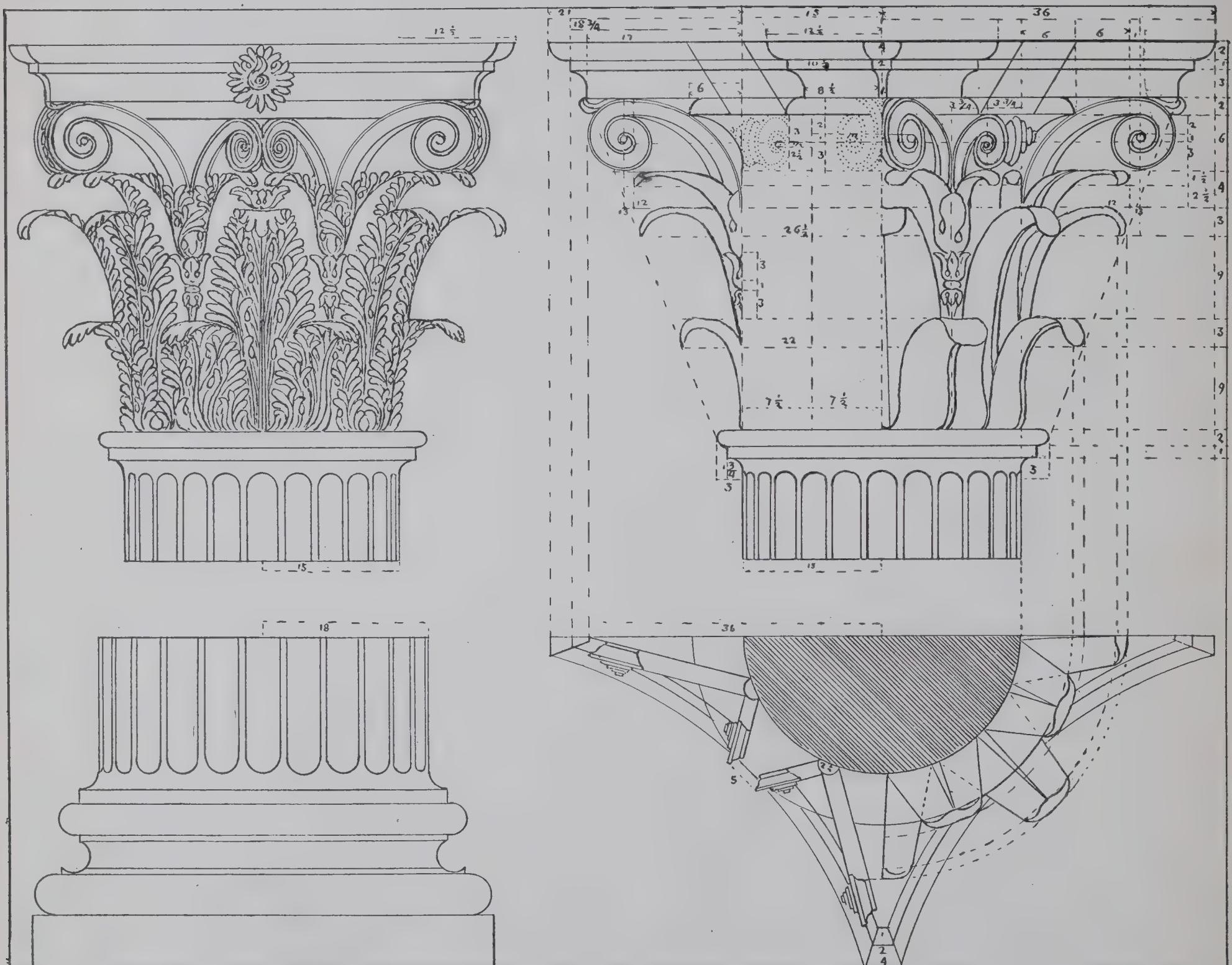
Height of Order =5.00 Meters (including Pedestal)
Height of Order =3149.60 Sixteenths (including Pedestal)

Scale =20 Centimeters =1 Meter.
Scale =1/16 inch =5/16 inch.

The Corinthian Order with the Pedestal

Problem 17

PLATE XXI-XXII
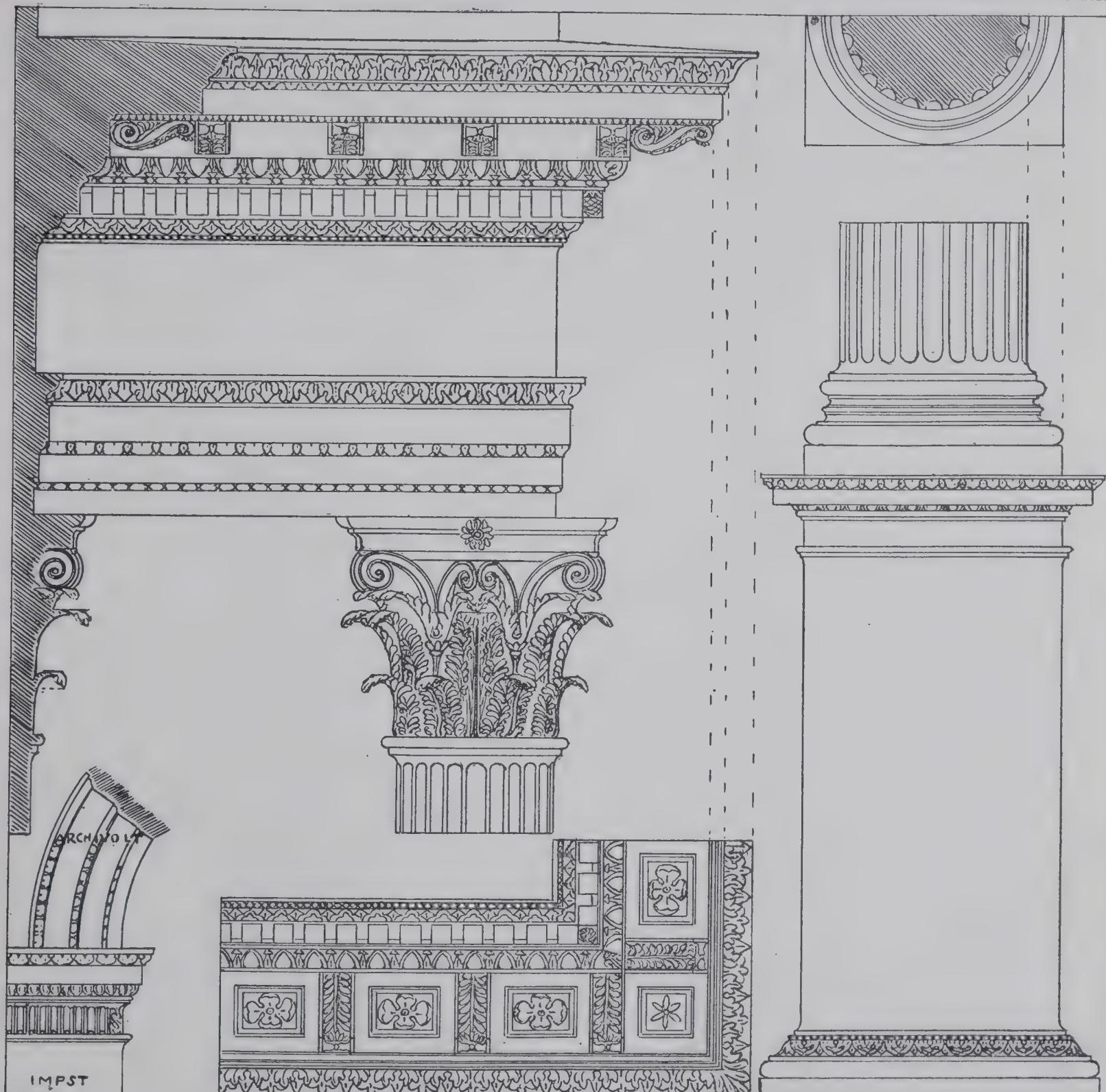
Height of Order =5.00 Meters.

Scale =10 Centimeters =1 Meter.

Height of Order =3149.60 Sixteenths.

Scale =1/16 inch =10/16 inch.

Simple or "Architravato" Intercolumniation with the Corinthian Order
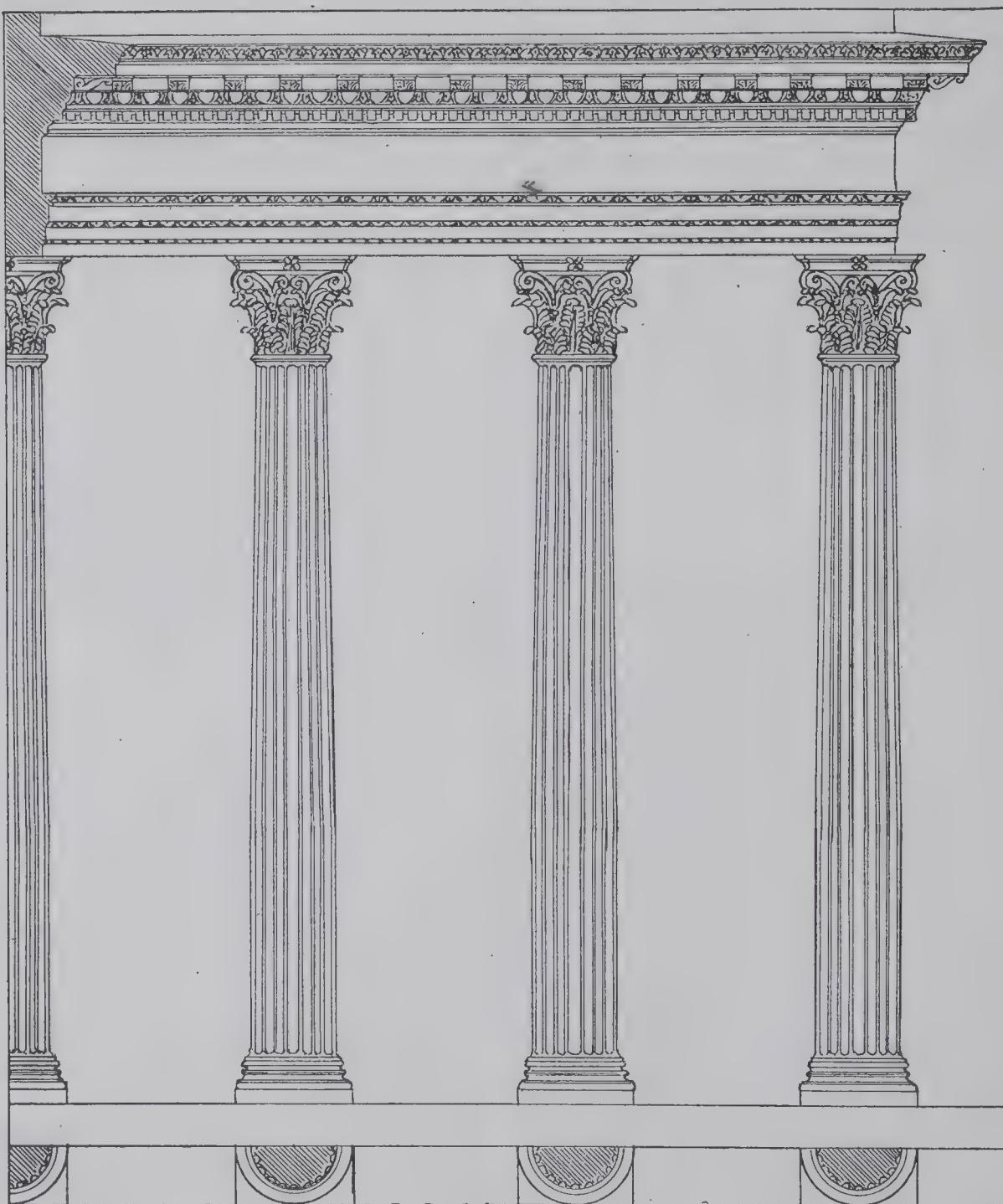
PLATE XXIII

Height of Order =3.00 Meters.   Scale =5 Centimeters =1 Meter.
Height of Order =1889.76 Sixteenths.   Scale =1/16 inch =20/16 inch.

Arcade Intercolumniation with Corinthian Order without the Pedestal

Problem 19

PLATE XXIV

SECTION A - B

A

B
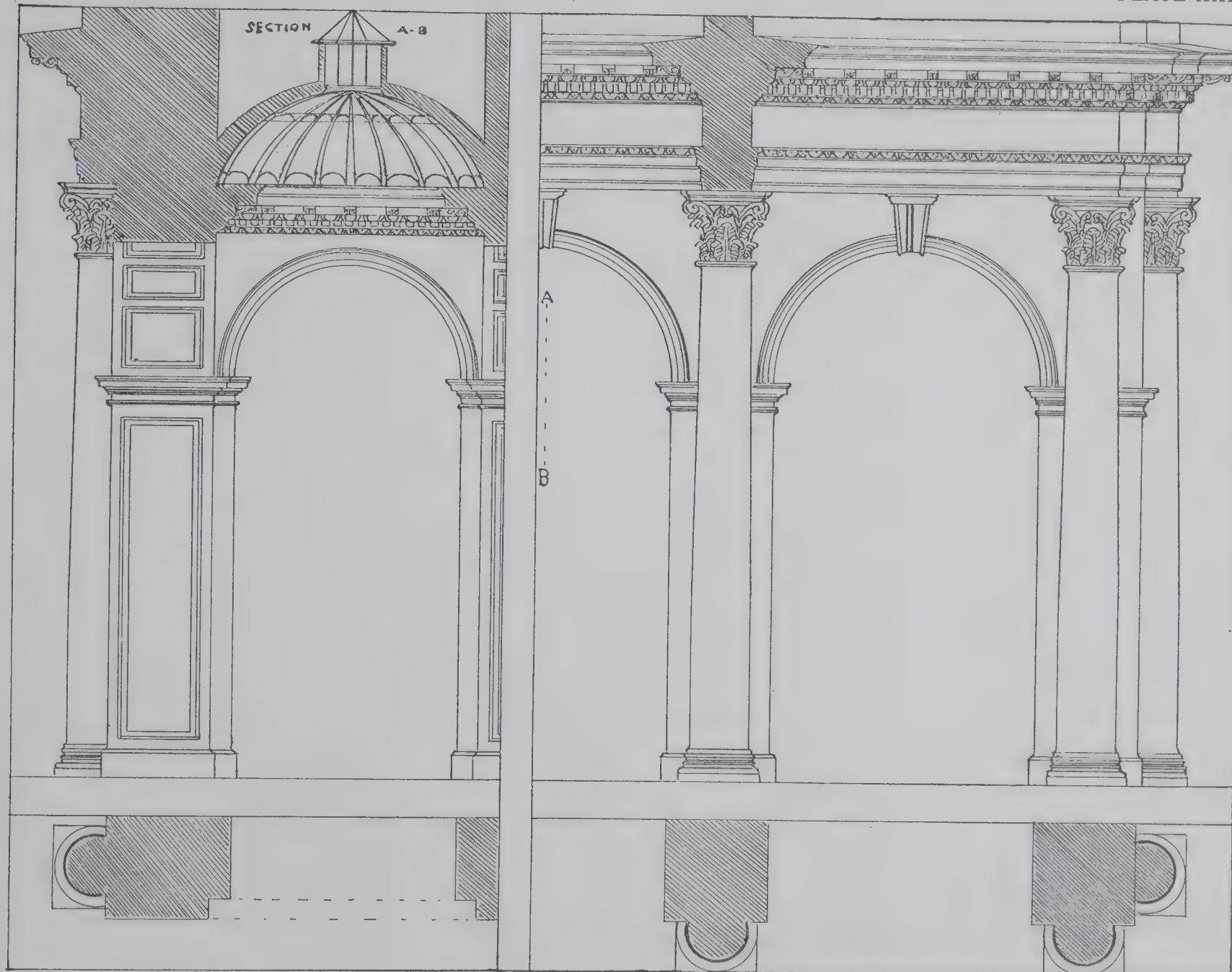
Height of Order =2.3684 Meters.
Height of Order =1491.90 Sixteenths.

Scale =5 Centimeters =1 Meter.
Scale =1/16 inch =20/16 inch.

Arcade Intercolumniation with the Corinthian Order with the Pedestal

Problem 20   **PLATE XXV**
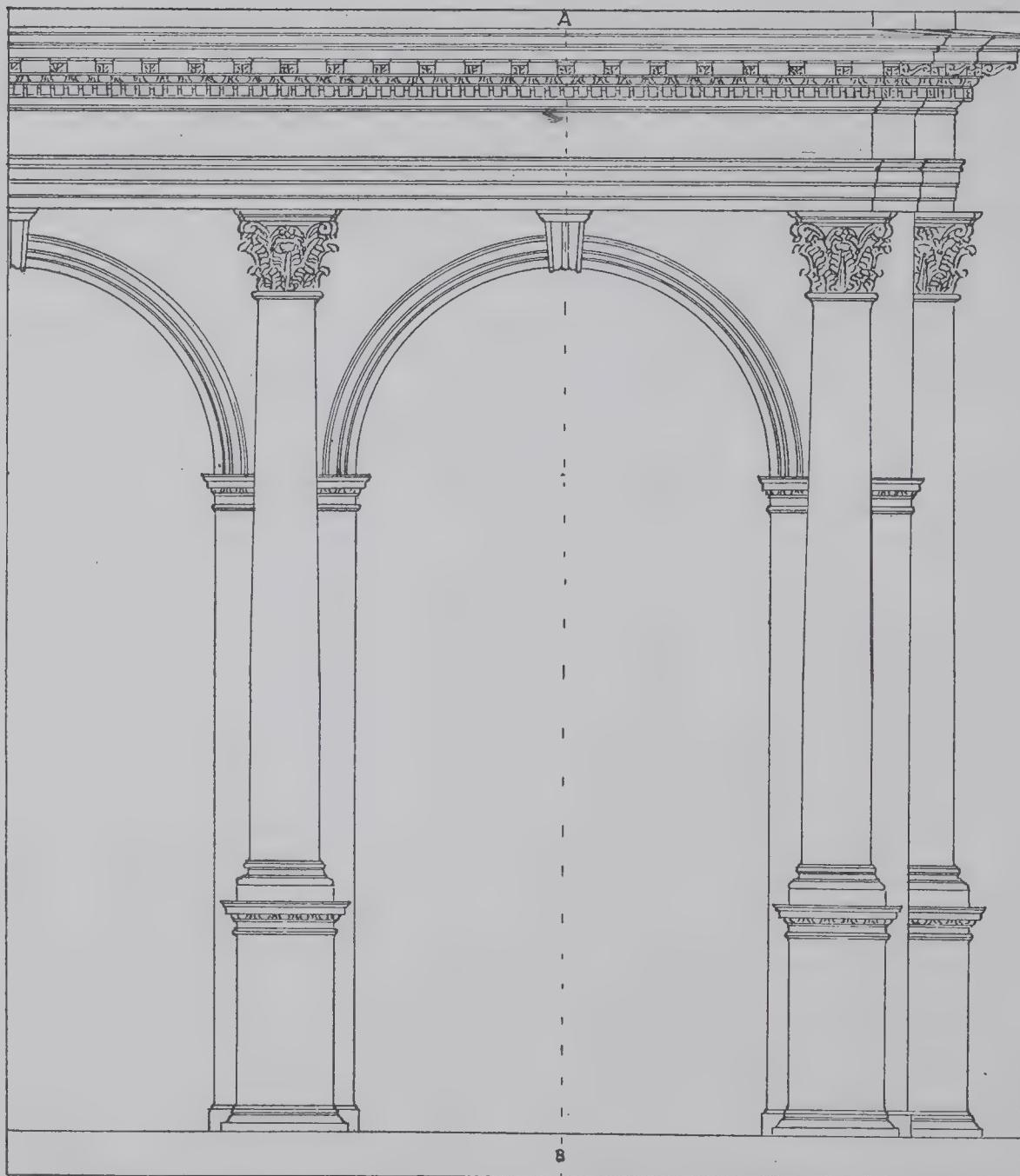
Height of Order =3.00 Meters.   Scale =5 Centimeters =1 Meter.
Height of Order =1889.76 Sixteenths.   Scale =1/16 inch =20/16 inch.

Section A B   Plate XXV-B

Problem 20   PLATE XXV (B)
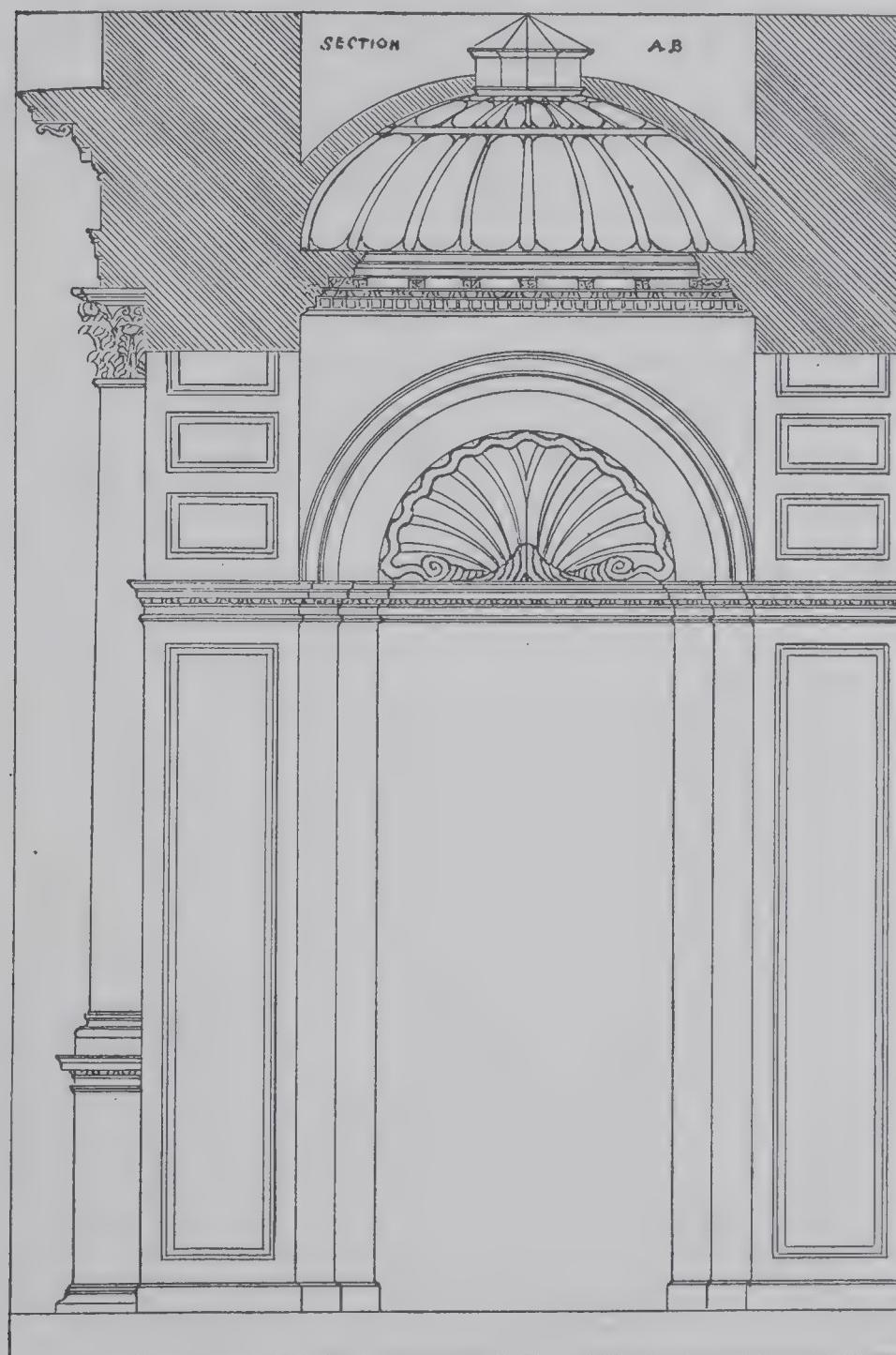
Height of Order =3.00 Meters.   Scale =5 Centimeters =1 Meter.
Height of Order =1889.76 Sixteenths.   Scale =1/16 inch =20/16 inch.

Capital of the Composite Order

Problem 21

PLATE XXVI
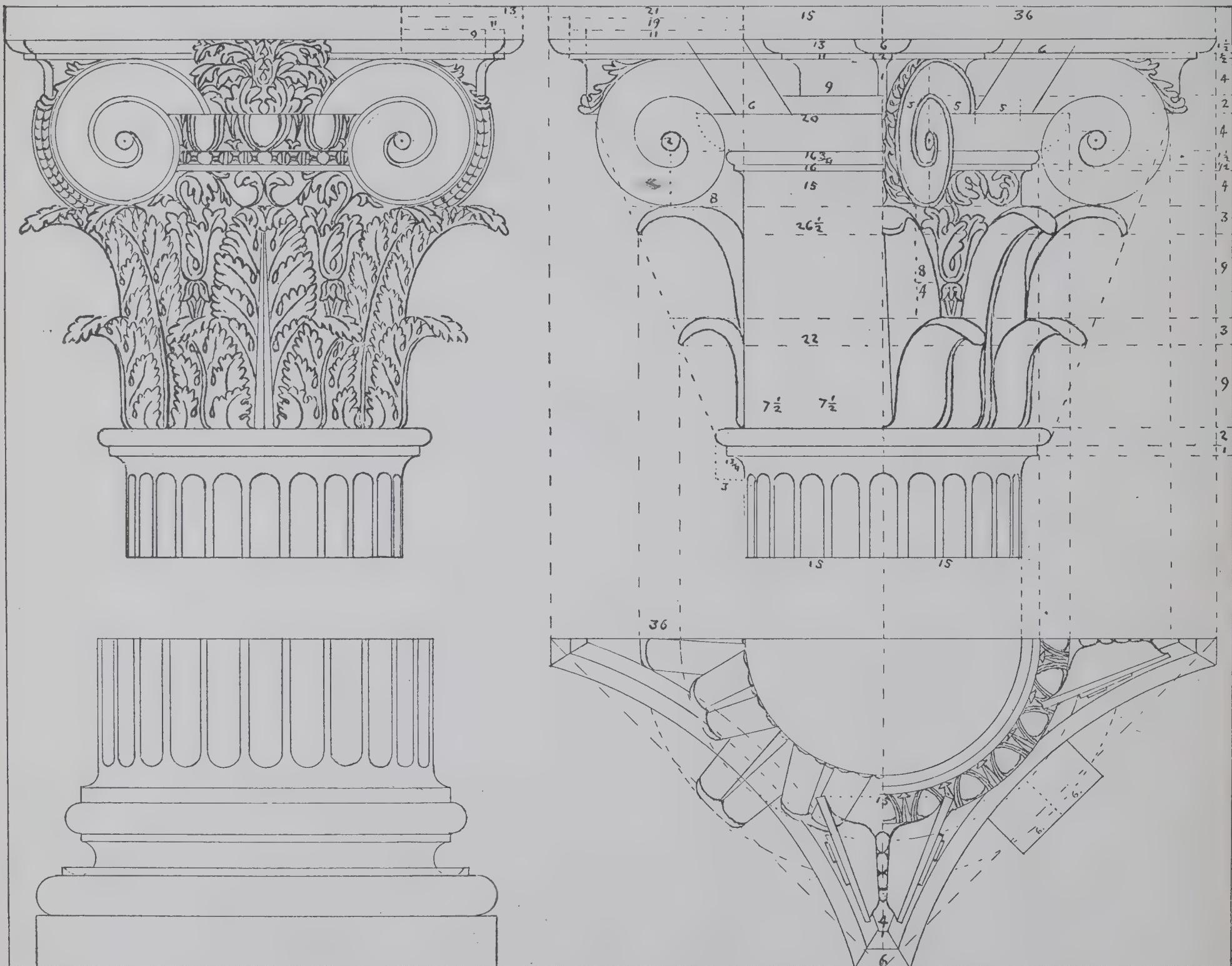
Height of Order =5.00 Meters.
Height of Order =3149.60 Sixteenths.

Scale =20 Centimeters =1 Meter.
Scale =1/16 inch =5/16 inch.

The Composite Order with the Pedestal

Problem 22

PLATE XXVII

ARCHIVOLT

IMPOST

Height of Order =5.00 Meters.
Height of Order =3149.60 Sixteenths.

Scale =10 Centimeters =1 Meter.
Scale =1/16 inch =10/16 inch.

Simple or "Architravato" Intercolumniation with the Composite Order

Problem 23   PLATE XXVIII
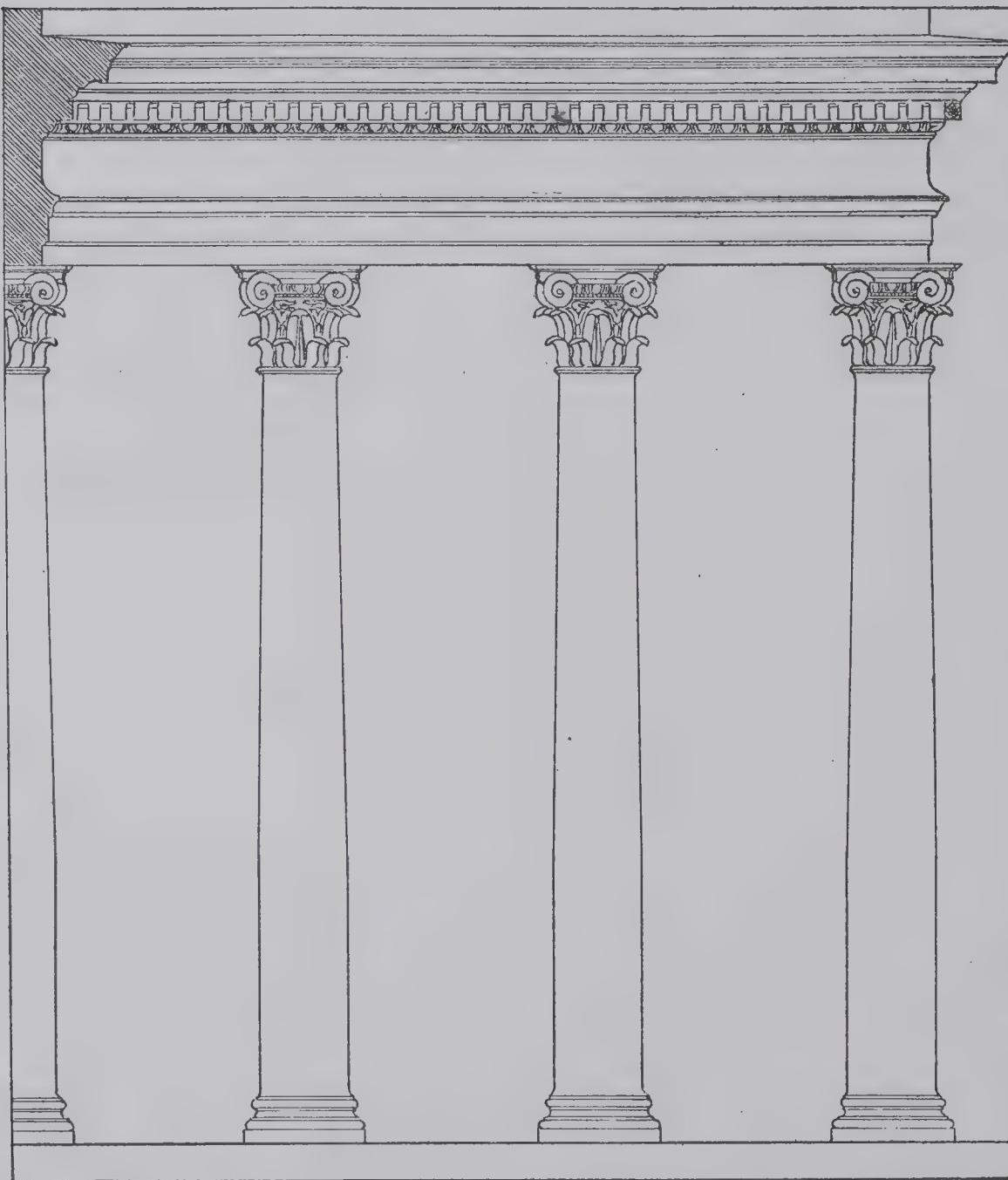
Height of Order =3.00 Meters.   Scale =5 Centimeters =1 Meter.
Height of Order =1889.76 Sixteenths.   Scale =1/16 inch =20/16 inch.

Arcade Intercolumniation with the Composite Order without the Pedestal

Problem 24   PLATE XXVIV

ARCHIVOLTO

IMPOST

SCALE

20 CENTIMETERS =1. METER

OR 1/16 INCH   = 1/16 INCH

Height of Order =2.3684 Meters.   Scale =5 Centimeters = 1 Meter.
Height of Order =1491.90 Sixteenths.   Scale =1/16 inch =20/16 inch.

Arcade Intercolumniation with the Composite Order with the Pedestal

                                    PLATE XXX

Height of Order =3.00 Meters.   Scale =5 Centimeters =1 Meter.
Height of Order =1889.76 Sixteenths.   Scale =1/16 inch =20/16 inch.
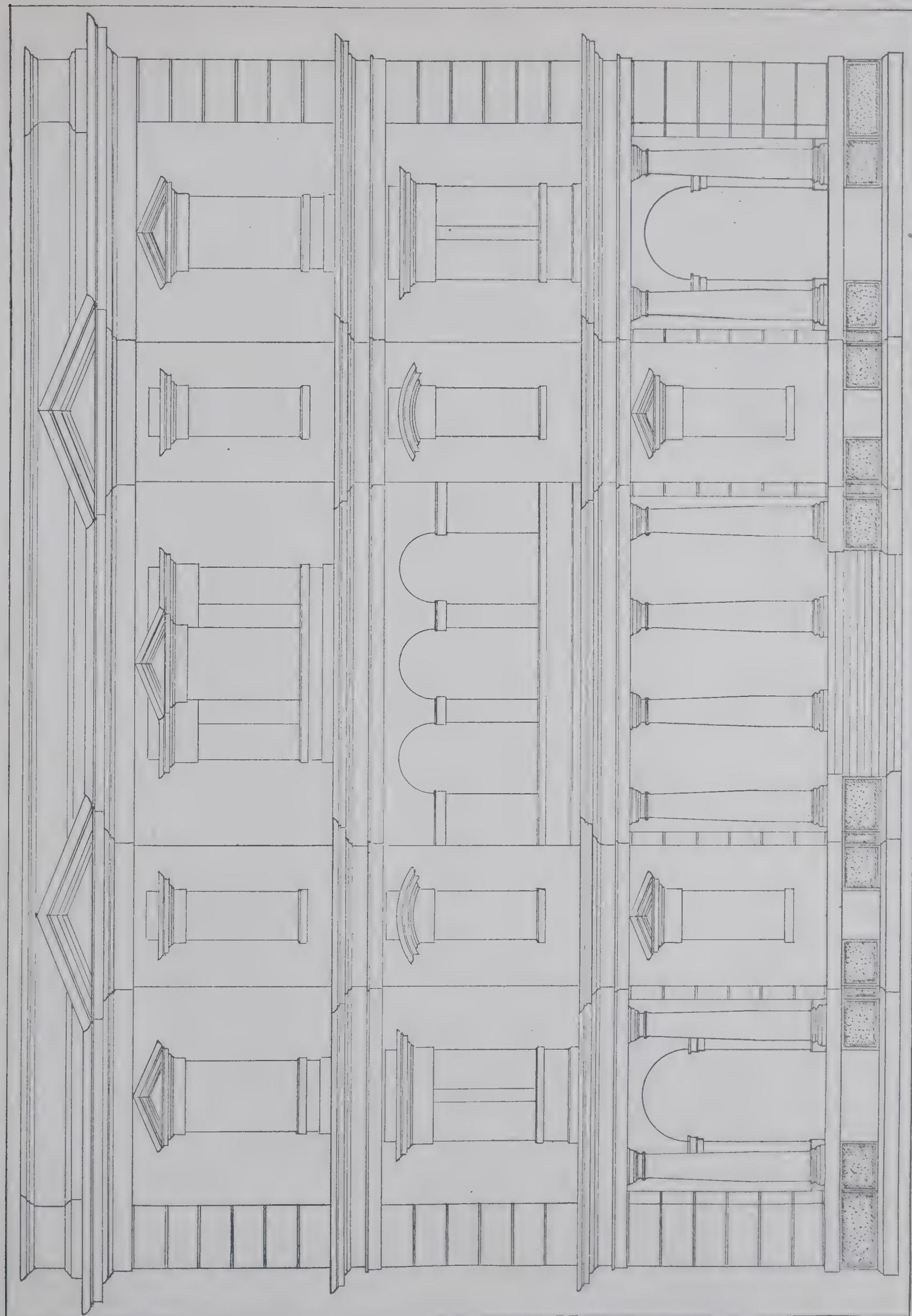
Height of Order =5.00 Meters or 3149.60 Sixteenths of inch.

Scale =1 Centimeter =1 Meter.

Scale 1/5 of 1/16 inch =1/16 inch or 1/16 =100 Sixteenths of inch.

INDEX

PART SIX

PART SEVEN

PART EIGHT

PART NINE